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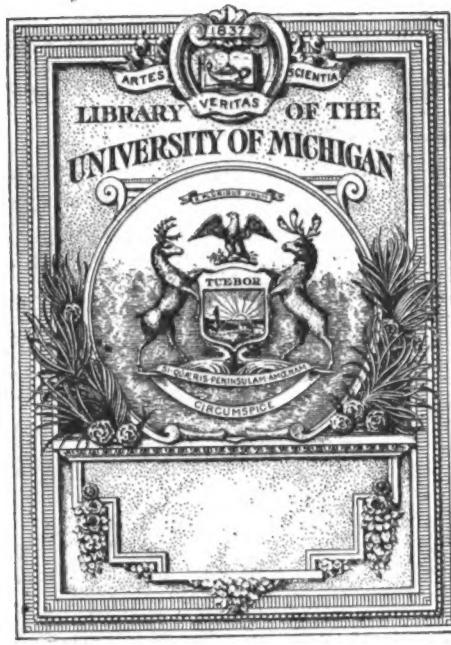
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THE TELEGRAPHER:

PUBLISHED BY THE

National Telegraphic Union.

VOLUME I.

FROM

SEPTEMBER 26, 1864, TO NOVEMBER 15, 1865.

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1864—1865.

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THE TELEGRAPHER.

"Canst thou send lightnings, that they may go and say unto thee, Here we are?"—Job 38, xxxv.

N. T. U.

"I'll put a girdle around about the earth in forty minutes."—Shakespeare.

Vol. 1.

New York, Monday, September 26, 1864.

No. 1.

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W. U. Tel., Office, St. Louis, Mo.

PROCEEDINGS OF THE

NATIONAL TELEGRAPHIC UNION CONVENTION

Held in Philadelphia, Pa., Monday, Sept. 5th, 1864.

First Session, 2 P. M.

MONDAY, September 5th.

The President being absent the Convention was called to order by the Vice-President, C. W. HAMMOND, at 2 o'clock, P. M.

The Recording Secretary being absent, Wm. H. YOUNG was elected Recording Secretary, *pro tem.*

On motion of Mr. R. J. BLACK, a Committee consisting of three was appointed by the Chairman to examine the credentials of the delegates.

The Chair appointed R. J. BLACK, KENNETH MCKENZIE and A. H. SEYMOUR on said Committee; after which the Convention took a recess of twenty minutes to enable the Committee to report.

On reassembling, the Committee reported the following persons entitled to seats as delegates to this Convention, viz: RORR. J. BLACK, JNO. W. McMULLEN and M. D. BUCKWELL, from the Philadelphia District; J. J. FLANAGAN and A. ELLISON from the Louisville District; G. S. SILSBIE from the Maine District; Wm. H. YOUNG and H. H. ATWATER from the Washington, D. C., District; M. H. REDDING, W. STEINHOFF, L. H. SMITH and J. W. BURNHAM, Alternate R. M. MATTOCKS, from the New York District; S. C. RICE from the Albany District; KENNETH MCKENZIE and CHAS. A. PARKER from the St. Louis District; E. B. CHANDLER, Wm. W. ASHLEY, A. H. SEYMOUR and SAM'L HOYT from the Chicago District; WM. P. POTTER, T. A. DAVIN and J. C. UPHAM from the Boston District; M. H. KOERNER and ARCH. WILSON, Jr., from the Baltimore District. Whole number 24.

Mr. T. A. DAVIN opposed the admission of the two delegates from Baltimore on the ground that not having complied with the requirements of the Constitution of the Union they were not entitled to seats. After considerable discussion Mr. L. H. SMITH moved that the subject in relation to the Baltimore delegates be laid over until to-morrow, which was adopted.

On motion of Mr. T. A. DAVIN the above vote was re-considered, and Mr. M. H. KOERNER was allowed to make an explanation; after which the Report of the Committee on Credentials was accepted.

Mr. T. A. DAVIN moved that Mr. JAS. PARTRICK, the Treasurer, be allowed to cast a vote by proxy for one of the delegates of the Boston District who was absent. The motion was amended by Mr. J. J. FLANAGAN that the delegates be allowed to vote by proxy for delegates who were absent; which was adopted.

The following letter accompanying the Annual Report of the President, JAS. G. SMITH, was received and read.

NEW YORK, September 3d, 1864.

GENTLEMEN:

That I am unfortunate is well known and expected generally, but that I should be so unfortunate as to be deprived of the pleasure of being with you at the opening of the Convention, is far more than I anticipated, and could only have been occasioned by a combination of circumstances.

My arrangements were all perfected for going, with one or two exceptions, which I intended to jump, but late on Saturday night I received intelligence that my brother-in-law was at the point of death in Grant's Hospital on Long Island; also that my mother had left for New York to visit him, and requested me to meet her. She being elderly and a total stranger to this city would, under ordinary circumstances, be unable to get along, unaided; but, adding to this circumlocution necessary to be gone through with to enable her to obtain the proper passes and permission to go by the only conveyance (Government steamer), you will readily understand my position.

I trust the business of the Convention will not in any way be interfered with by my absence; and I hope to be able to meet you Monday night, should I be able to arrange my affairs before that time.

I trust everything will go forward harmoniously; and since I have been assured that the Vice-President will be present, my disappointment has been greatly lessened.

Yours respectfully,

JAS. G. SMITH, Pres.

PRESIDENT'S REPORT.

GENTLEMEN OF THE CONVENTION:

Ten months ago the first Telegraphic Convention, elected from among the operators, that ever met in this country, came together in the city of New York.

At the time of the call for that Convention a feeling of the necessity of an organization similar to that designed was quite generally felt, but what the groundwork of action could be, what was really the amount of sympathy felt towards a Union, what under our peculiarly embarrassing situation could be done towards uniting ourselves, and what would be the tone and character of the Union, if established, were questions that few could settle to their own satisfaction. Sufficient, however, was ascertained to make it evident that an intelligent and respectable class among operators were anxious and willing to support a creditable Union; and the Convention came together representing, through indirect action, a large circle of operators.

The sessions of the Convention lasted three days, and it is a great pleasure to be able to say that, in my humble opinion, the first Convention was creditable, not alone to the Districts to which the members belonged, but to the profession generally, and considering the newness of the enterprise, the field to be covered by their action, the dangerous questions likely to arise to nullify the preliminary measures necessary to be taken, they brought to the meeting a unity of purpose, an intelligent appreciation of the position and the duties, which would, I think, challenge a favorable comparison with any similar Convention among any class of men.

Much of their success was undoubtedly due to the ability with which the presiding officer discharged his duties, and, although I regret that we are not similarly situated in that respect to-day, we still have his example before us, and I trust we may profit by it.

A Constitution and Code of By-Laws were adopted, which were well suited to the necessities of the occasion, and which were of such a character that any Telegrapher could feel gratified at and pleased to support, and the result of which has been that, notwithstanding the difficulties to be overcome, we have, as a body, advanced steadily, although slowly, and have during this short time become a permanent institution.

The Constitution was really the starting point—no organization previous to that having effected that much upon any basis that promised good results—and from the adoption of that instrument we must date the existence of our "Union."

We now number, of regular members whose names are enrolled upon the Treasurer's books, two hundred and fifty, comprising twelve Districts. Many others consider themselves members, and may eventually fulfil the duties required, but at present have not taken all the steps necessary to entitle them to privileges of membership.

Many of the obstacles in the way of rapid and thorough organization of Districts and the carrying out of all the necessary steps which would leave no question of the existence of full rights and titles, is owing to inattention or lack of interest on the part of the officers of the Districts.

The Treasurer informs me that he now has in his hands, to the credit of the Union, \$393.27. But very few members have received aid on account of sickness or disability, although some individual demands have been large through this source. For details of the financial affairs of the Union I refer you to the report of the Treasurer.

The experience of ten months has shown to us that in many ways we can now improve upon the production of our first essay; and this present Convention is met, in accordance with the Constitution, to consider what further, or other action, can now consistently be taken for our interest.

To complete and perfect the Constitution and By-Laws, and thus establish a permanent basis upon which our organization can go forward more rapidly, will, I think, be found sufficient to occupy the attention of the Convention at this session.

Our individual duties and our desire to be in no manner a hindrance to the general business of the profession (which we all know to be so conditioned at present that the continued absence of so large a body of practical men from its daily demands and requirements would be injurious), will be sufficient stimulus to prompt us to quick and decided action, so that we may return to our respective stations at the earliest possible moment.

One great impediment in the way of rapid and satisfactory progress has been found in the divided and scattered positions that we occupy. Many places contain but one member, one telegraph operator being sufficient for the locality; and in fact there are but a few places where a sufficient number of members are employed to make, when collected together, a respectable gathering for purposes of interchange of views and ideas. This has necessitated, on the part of the officers and those members who take the greatest interest, a large amount of correspondence and written communications, and, in consequence, a good deal of labor and devotion of all the time allowed from their daily duties, and still much has been left undone.

I would heartily recommend that some means be devised for more frequent, easier and more general communication among members and districts. Those situated in smaller places hear and know, in many instances, scarcely anything of what is going forward, and are very naturally, I think, inclined to believe that nothing is being done, and that no interest is felt in the affairs of the Union.

THE TELEGRAPHER.

In this connection I would suggest that the publication at regular periods (say monthly) of a sheet containing from four to eight pages, in my opinion, would be the best means of overcoming these difficulties.

The publication could contain accounts of the proceedings at the regular meetings of the several districts, whereby all could readily see what interest is taken in other districts, and can profit by any valuable ideas or suggestions presented at other points.

Changes will no doubt be made in the Constitution and By-Laws which will render it necessary to issue new copies of them; and apparently one of the most direct and thorough ways of issuing such documents would be to print them off, together with the proceedings of this Convention, in an issue immediately after the close of the session. Such issue, perhaps, to be the first of a regular publication. The advantages that such a paper would offer for the exhibition of whatever is progressive and enabling among operators would accommodate what is, and for a long time has been, almost an absolute need and requirement.

The profession generally and all those who are interested in the advancement of the science and practical application of Telegraphing could and would contribute to its columns.

Such a publication could be easily supported by the members of this association alone, and could be gradually increased in size with the advancement of the Union and the increase of contributions until, perhaps, we could realize eventually the full idea of a Telegraphic Review as comprehensive as that proposed by the Vice-President at the first convention.

That a publication of this kind would be of great advantage to us as an association seems almost indisputable. It would advance the standing of the Union; tend greatly toward the removal of the prejudice that now exists between companies and operators; and, properly managed, become a source of revenue.

I look upon it as almost an impossibility for a Telegraphic Review to be established and maintained successfully in any other way than through the immediate support and interest of the body of practical telegraphers.

The questions of title, place and manner of publication, the proper person to take charge of its editorial management, price, and other details, can be disposed of without great deal of discussion or loss of time.

Among the constitutional amendments which seem to me to be necessary will be that regulating the regular dues of members. At present it is fixed at one per cent. of the salary of the member. It cannot be legal or right to inquire into the private affairs of members, as this clause of the Constitution makes it necessary to do. Our Union, like other institutions, cannot affect to govern the whole interests of the member. We have certain beneficiary provisions and certain regular expenses; these must be met by regular assessments. Moreover, one member has no greater privilege than another, and should not, therefore, be called upon to contribute more than another. Instead of one per cent. on the salary, I would recommend that some stated amount per month or annum be assessed.

Neither the Constitution nor the By-Laws appear to be explicit and direct enough in their provisions for the organization and incoming of new Districts. Complaints are made that it is necessary to search over both Constitution and the By-Laws in order to ascertain how a person or District can attach themselves to the Union, and then nothing absolute is ascertained. Some attention must be given toward remedying this defect as it is of vital importance that too great obstacles should not be thrown in the way of those desirous of forming part of the association.

A good deal of discussion has ensued among members and Districts relative to article 7th of the Constitution, in reference to members who may become incapacitated from their usual duties by sickness or accident. We plainly need some such provision in the Constitution, but the amount set down is evidently too large. It is not in proportion to the assessments, and experience has proved that the Union could not afford to retain the provision as it now reads. I recommend that it be modified so as to equalize the advantages derived from the amount paid out by the Union. This could be done by providing for the payment of a nominal sum per week, say five dollars, and placing in the hands of the proper officer the power to limit the length of payments according to the resources of the Treasury and the circumstances of the case.

I would suggest that the election of general officers should take place immediately before the adjournment of the Convention instead of upon the first day as provided. A change of the provision will be necessary to do this. It does not appear to me to be the proper time for the election of officers as many are in doubt as to the ability of those who may be looked upon by a large number as the proper persons for the positions, and too much of the time of the Convention is likely to be consumed by discussion and hesitation; whereas, during the recesses of the meetings members can talk over the requirements of the positions, and the character and quality of candidates. Again, as now provided, it looks as though intended that the officers so elected should enter upon their duties at the meeting of the Convention upon the same day. This evidently cannot be the proper interpretation as the former officers could not make their reports.

At the last session, I am firmly impressed with the belief, that, a provision was passed authorizing the payment of the expenses of delegates from the fund of the Union, but I do not see it in the copy of the Constitution. This provision seems to be necessary, and I think a resolution regulating that matter should be passed, and should be allowed to include the expenses of the delegates to this Convention.

In order to preserve as much as possible the credit and character of the Union, pains must be taken to investigate the *moral* qualifications of new members. It is my opinion that no person known to be addicted to drunkenness, even should be the finest description of an operator, (so far as writing and reading is concerned,) should be allowed to become a member unless strong proofs are shown of reformation. Nothing whatever is to be gained by the addition of such men, and nothing is lost by rejecting them. Cases will arise where men known to be good-hearted, intelligent, fine, practical operators, but addicted to this habit, desire to become members, and although we may not desire to wound their feelings, yet the character of the Union is worth preserving, and when the fact becomes patent that we cannot accept such members, they will reform themselves before asking admission, or must expect to be rejected.

Throughout the ten months that have passed since our organization, we have gained in the respect and esteem of the Companies that employ us. A Telegrapher to-day is not regarded in the same light that he was a year ago. The better class of operators throughout the country are joining our ranks. Our provisions are

sufficiently liberal to allow all good men and Telegraphers to come into the association, and we institute no unjust or illiberal measures, but only such as are necessary to our progress and the preservation of our standing and character. It will soon be said that those among Telegraphers who are not of us must necessarily be defective or unreliable, and we shall find ourselves constantly and steadily gaining in the eyes of those we desire to influence, and progressing in the path that leads to substantial results.

Not being organized upon temporary ground, or for transient and momentary purposes, we need to employ wisdom and prudence in our considerations. Let us not look to present results so much as to the future. Our organization is yet young, and by the measure of forethought and discretion that we exhibit, shall we be weighed by those who wait to either condemn us or to aid us. While we make no boasts, or threaten any interests, let us prove by our intelligent action, that we are capable of what we have undertaken, and that the Union and, profession are both safe in our hands.

To one occupying the position that I have in the Union, the opportunity has been open to accomplish much by individual exertion and perseverance. But I have been so circumstanced that I have not been able to give the occasion and the duties the attention they have deserved and needed; and I sincerely hope that you will be able to find, for the ensuing year, some one capable of giving to the duties of the position the attention they require, and that they must have. And I trust that by the time the Convention meets again we shall find ourselves benefited by our action and our association growing in favor and in numbers. We must bear in mind that the best results generally come by slow process, but are none the less satisfactory or perfect.

May good success attend our endeavors, at the present meeting.

JAS. G. SMITH.

President.

Mr. L. H. SMITH, moved that the Report be accepted and placed on file. Mr. W. H. YOUNG moved to amend above motion, to accept the Report, and refer it to a committee of three. The amendment was accepted by Mr. L. H. SMITH, and adopted. Chair appointed L. H. SMITH, T. A. DAVIN and M. D. BUCKWELL as the committee.

The Chairman laid before the Convention the following Report of the Treasurer:

PHILADELPHIA, Sept. 3d, 1864.

JAMES G. SMITH, Esq., President National Telegraphic Union:

DEAR SIR:—I have the honor to submit the following Report of the Treasury of the National Telegraphic Union from November 2d, 1863, (the date of organization) to August 2d, 1864:

RECEIPTS.	
Initiation Fees,	\$250 00
Quarterly Dues,	514 57
<hr/>	
	\$764 57
EXPENDITURES.	
Printing Constitution, &c.,	\$108 00
Paid out for Sickness,	24 00
Books, Stationery, Postage, &c.,	15 50
Express Charges,	1 30
Lithographing Members' Certificates,	72 50
Salary of Treasurer	150 00
Amount in Treasury,	393 27
<hr/>	
	\$764 57

Since the date of organization there has been admitted 250 members—two of whom have since died, one been expelled for non-payment of dues, and one resigned. The total number of members up to August 1st, 1864, was 246.

In submitting this Report, your Treasurer would beg leave to propose several alterations in the financial conduct of the organization. By the present arrangement some members are compelled to pay more dues than others, and it seems impossible for many of the District Directors to collect the exact amount, as the salaries of operators are at present changing so frequently. I would therefore recommend to your favorable consideration the propriety of making the dues a stated sum per annum, payable quarterly.

I would also recommend that some measure be adopted to encourage the Districts to be more prompt in their payments, as almost every District is more or less in arrears.

It is because of this unsettled state of affairs, and continual changing of salaries, that I cannot furnish, as I had intended, a full, complete statement of outstanding claims. But, judging from the amount heretofore paid in, I estimate them at from three to four hundred dollars.

Trusting that this Report will meet with your favorable consideration,

I remain,

Your most obedient servant,

JAMES PARTRICK,

Treasurer, &c.

PHILADELPHIA, Sept. 5th, 1864.

J. G. SMITH, President, &c.:

Since closing my Report, I have received from Mr. A. H. SEYMOUR, Chicago, \$53 00, which entitles that District to a representation of four delegates. Also received from Mr. S. C. RICE, Albany, N. Y., \$18.00, which entitles that District to one delegate.

Total amount in Treasury, \$464.27.

Respectfully,
JAMES PARTRICK,
Treasurer, &c.

On motion of Mr. L. H. SMITH, Report accepted and placed on file.
Mr. L. H. SMITH offered the following resolution:

Resolved.—That the Secretary pro tem, be requested to keep, so far as possible, a minute record of all the proceedings of this Convention, securing a true copy of all bills, laws, enactments, amendments, motions and resolutions, offered, passed, or how disposed of, and the tenor of the remarks thereon, also the names of the members; which was adopted.

Mr. L. H. Smith offered the following amendment to the "Order of Business":

ORDER OF BUSINESS.

1.—Examining the credentials of members, by a Committee appointed by the Chair.

2.—Reading of the proceedings of the last Convention, by the Recording Secretary, and approval of the same by the Meeting.

3.—President shall read his Yearly Report.

4.—Reading of the Treasurer's Detailed Annual Report.

5.—Report of the Corresponding Secretary.

6.—Reports of Committees shall be made complete, and of progress.

7.—Election of Officers.

8.—Resolutions shall be offered.

9.—Unfinished business.

10.—Any new business.

11.—Deciding where the next Convention shall be held; and Adjournment.

Which was adopted.

Mr. L. H. Smith moved to postpone election of officers until the evening session; which was adopted.

Mr. L. H. Smith offered the following:

An Act to Provide and Make Appropriations for the Publication of a Monthly Review to Maintain the Interests of the National Telegraphic Union in particular, and Telegraphers in general.

The Members of the National Telegraphic Union, in Convention assembled, do enact as follows:

SECTION 1. The President shall, with the advice and consent of the Executive Committee, cause to be published once each and every month, in the city of a Review of the proceedings of each and every District of the National Telegraphic Union.

§ 2. The Review shall be entitled "THE NATIONAL TELEGRAPHER," and be devoted to the interests of the National Telegraphic Union in particular, and of Telegraphers and Telegraphing in general.

§ 3. It shall contain, besides a review of the origin, progress, and aims of the Union, and the proceedings of each and every monthly meeting of each and every District, the orders, instructions, recommendations, and calls of the President, the quarterly reports of the Treasurer and his detailed annual report, the proceedings (except such as are necessary to be kept secret) of each and every meeting of the Convention of Delegates, the orders, bills, resolutions and enactments in full of the Conventions, editorial matter, original articles on Telegraphy, Telegraphic history and progress, extracts from Telegraphic works, improvements in the art, promotions, changes and removals of Telegraphers, and in fact, to contain everything honorable and truthful pertaining to the Union or Telegraphing.

§ 4. The President shall, with the advice and consent of the Executive Committee, appoint some member of the Union, not less than twenty five years of age, as Editor of the afore-mentioned Review, who is to have entire editorial control of the same, and shall be the judge of what articles, other than the President's orders, &c., proceedings of the Conventions and District meetings, to be published. He shall attend to the finances of the Review, making a monthly report of the same to President and Treasurer until otherwise ordered by the Convention. He shall attend to the dispatching, immediately after publication, of a requisite number of each and every edition of the Review to the several Districts.

§ 5. The Review shall be issued the first part of the last week of each and every month.

§ 6. The several Districts shall hold their meetings during the first week of each and every month, and the District Directors thereof shall forward immediately thereafter, to the editor of the before-mentioned Review, a true transcript from the District Secretary's book, of the proceedings of each and every meeting of their District, and any remarks or suggestions they may see fit to make, and supply such other items of information that the editor may call for.

§ 7. The whole number of the first issue of the Review shall be five hundred copies, the same to be increased as the demand may require, which shall be determined on by the editor.

§ 8. When the demand for space in the Review shall be so great as to demand an enlarged sheet, the increase shall be made by adding another sheet of the same size of, and uniform with the former issue.

§ 9. The size of the paper shall be a single sheet, 9x12 inches when folded, (18x12 inches when open) with two columns to the page, type the size of the editorial matter of Harper's Weekly, to be changed when deemed necessary by the Editor, and to be printed on white paper, equally as good as the last-mentioned journal.

§ 10. The Treasurer of the Union shall, by order of the President, upon the advice and consent of the Executive Committee, pay into the hands of the editor a sum sufficient to pay for all expenses attending the publication of the first edition of five hundred copies of the Review, for which the editor shall return a receipt and vouchers approved by the President.

§ 11. The Treasurer shall also, after the first issue, as provided in section 9 of this bill, pay into the hands of the editor a sum sufficient to meet any expenses in excess of the returns made by the several Districts for the copies sent them, the editor to make acknowledgments as provided in the foregoing sections of this bill.

§ 12. Whenever the receipts from the sales of the Review are in excess of the expenses of publishing the same, they shall be deposited with the Treasurer, who shall credit them to the Review fund, unless said excess of receipts shall be needed to make alterations and improvements in the Review, which shall be determined by the editor thereof and the President.

§ 13. The Directors of the several Districts shall distribute a copy or copies of the Review to each member of his District, who shall pay him the sum of — cents for the same, which several sums the Director shall remit, total, at least once a month, and at as early a day as possible, to the editor of the Review, who shall acknowledge, through the columns of the paper, the receipt of the same, and the

editor shall use the several amounts, thus remitted by the Directors, in paying for the publication of the next issue of the Review.

§ 14. The editor shall not receive any compensation for his services until the demand upon his time be so great as to interfere with his other duties, when the delegates in Convention shall vote him a salary.

§ 15. One copy of each and every edition of the Review shall be reserved for the use of the Union, and caused to be bound and preserved among the books and papers in the hands of the Recording Secretary. One of each and every edition shall be reserved for the use of the editor, who shall cause the same to be bound and preserved among the books and papers of his office. A sufficient number of copies of each and every edition shall be placed at the disposal of the editor to carry on such exchanges as he may deem necessary.

§ 16. The price per copy to members shall only be a sum sufficient to pay the publication expenses of the same.

§ 17. This Act to go into effect immediately.

A discussion ensued in relation to the expediency of the measure. Remarks were made by Messrs. Black, Smith, Young, Flanagan, and others, on the subject. Various propositions were suggested, when

Mr. J. J. Flanagan moved the whole subject be referred to a Committee of five, which motion was adopted.

M. L. H. Smith moved to make the report of the Committee the special order for to-morrow evening, which was agreed to.

Chair appointed as a Committee, W. H. Young, J. J. Flanagan, R. J. Black, K. McKenzie, W. W. Ashley.

Mr. L. H. Smith offered a resolution, as follows:

Resolved.—That the thanks of this Convention be tendered Mr. T. A. Davin for his generous gift to the Union of his salary as Corresponding Secretary for the past year, and that a copy of this resolution, signed by the President and Recording Secretary, be presented to him.

Which was, on motion, unanimously adopted.

On motion, the Convention, at five o'clock, adjourned until eight o'clock this evening.

Evening Session.

MONDAY, Sept. 5th, 8 o'clock, P. M.

Convention was called to order at 8 o'clock, P. M. The minutes of the previous meeting read, and on motion, adopted.

The election coming up in order, a discussion arose between Messrs. Black, Smith and others, in relation to the time in which officers should take their seats. During the discussion the Vice-President called on Mr. R. J. Black to act as Chairman pro tem., after which the subject, by general consent, was laid over for future consideration, and the Convention proceeded to ballot for President.

The Chair appointed J. J. Flanagan and T. A. Davin tellers.

Mr. C. W. Hammond was nominated for the office of President, and unanimously elected.

W. H. Young and J. C. Upham were nominated for Vice-Presidents. On the first ballot W. H. Young received fifteen votes, and J. C. Upham nine.

On motion, W. H. Young was declared unanimously elected.

Mr. Kenneth McKenzie was nominated for Corresponding Secretary, and unanimously elected

A. H. Seymour and J. C. Upham were nominated for Recording Secretary. The first ballot resulted in Mr. Seymour receiving six votes, and Mr. Upham fifteen.

On motion, J. C. Upham was declared unanimously elected.

On motion of Mr. W. H. Young, the rules were suspended, and Mr. Jas. Partrick was unanimously elected Treasurer.

The officers severally returned their thanks for the honor conferred.

Mr. J. G. Smith, the President, at this moment entered the room, and was welcomed with applause, the members rising to their feet and giving three cheers.

Mr. Smith on taking the Chair returned his thanks.

Mr. W. H. Young offered the following Resolutions:

Whereas, numerous individuals have established so-called schools or colleges in various sections of the country, for the professed object of teaching the art of Telegraphing; and

Whereas, A great majority of the originators, or projectors of these schools or colleges are believed not to be possessed of sufficient capacity or experience to secure positions as practical Telegraphers; and

Whereas, No regard is paid to the qualification of students, either morally or mentally, by these self-styled colleges; therefore be it

Resolved.—That we consider the existence of these schools, as conducted at the present time, detrimental to the interests of this Union, the interests of the Telegraph companies, and the interests of the general public, by flooding the country with inefficient operators at cheap rate, destroying one of the chief merits of the business, its reliability.

Resolved.—That the Executive Committee of this Union are hereby requested to confer with the officers of the different Telegraph Companies throughout the United States and endeavor to secure their co-operation as to the best means to be employed to remedy the evil, and if possible to make arrangements whereby the learning of persons the profession, in all its branches, may be regulated by the National Telegraphic Union.

Resolutions adopted.

Mr. L. H. Smith offered the following resolutions:

Whereas, A person, A. N. Aplin by name, was a delegate from the Independent Telegraph office of the city of New York, to the primal Convention of this Union; and

Whereas, At the election of General Officers at that Convention, the aforesaid Aplin was elected Recording Secretary, and thus became a member of the Executive Committee; and

Whereas, The aforesaid Aplin has not paid in, to any person authorized to receive the same, his initiation fee, or any dues, nor subscribed his name to the pledges of membership or office, has not, to this day, performed any of the duties of his office, or as a member of the Executive Committee, thereby causing unnecessary and vexatious delay in the perfect organization of the Union, and has not, in the least particular, fulfilled any of the requirements of membership; and

[Continued on page 5.]

The Telegrapher,

Published Monthly by THE NATIONAL TELEGRAPHIC UNION,
L. H. SMITH, Editor.
P. O. Box 3,393, N. Y. City.

MONDAY, SEPT. 26, 1864.

WITH an unworn pen, dipped in virgin ink, we make, editorially, our maiden bow to an audience of readers.

That there are a few who are patiently awaiting our appearance, with a general wish for our success, we hope, and believe others are waiting with a patient curiosity to see how we vault into the saddle, upon our new and untried steed, but we trust there are none who stand serenely waiting, with an expectant hope, for our failure.

We enter upon this new field of labor with the same endeavor and desire which has prompted us, since the organization of the Union, to do our best for the Union and its members. With this intention, on our part, we have a right to expect generous aid from every member of the Union.

This is the second, and we hope it will prove the *first successful* attempt to establish a Telegraphic Journal in this country, and it is for every Telegrapher, and particularly the members of the Union, to lend their aid to prevent its failure.

Our time, not occupied by our daily duties, is limited, and we are, therefore, unable to carry all the weight of the enterprise unaided and alone, a feat and service we would gladly perform if it were in our power, but circumstanced as we are, we will be unable to do more than act the part of the miller who pours into the hopper the grist that is brought him, rejecting the poor and accepting the good.

With an expectant hope for full cargoes, light winds, and a calm sea, we launch our little white-winged boat upon still waters, asking all to receive it kindly.

In common with all new enterprises we must apologize for our shortcomings. The great amount of labor, and limited time at our disposal and the hurry necessary to issue our sheet at the prescribed time, has prevented us from giving the columns of "The Telegrapher" the light and pleasant appearance which we intend they shall have.

The great amount of matter necessary to appear in this, our first issue, has necessitated the use of small type, and the crowding of the space at our command.

It is vitally important to the interests of the Union that the full proceedings of the late Convention be placed before the members at the earliest possible moment, and to this end have we directed our efforts, and offer this explanation as our apology for the crowded appearance of the columns of "The Telegrapher."

Before many months have slipped away we hope to be able to procure an appropriate heading for "The Telegrapher."

In this connection, we invite our readers to send us designs, or make suggestions for a heading which should be emblematic of the Union and our profession.

The attention of the Directors of the several Districts is called to the provisions of the "Review Bill," which will be found in the proceedings of Monday afternoon's Session of the Convention.

This Act directs the Monthly Meetings of the Districts shall be held the first part of the first week of each and every month; and further, that the Directors shall furnish us *immediately* upon the adjournment thereof a true copy of the proceedings of those meetings, with any remarks or suggestions which they, the Directors, see fit to make.

As the subject matter for "The Telegrapher," mainly depends upon those proceedings, we expect promptness on the part of the Directors.

"The Telegrapher" being intended to be one of the pillars of the Union structure, it seems hardly necessary to remind the general officers, who have thus far shown a promptness and energy truly commendable, that much material for our columns is expected from them.

We invite all our readers, whether members of the Union or not, to send us any articles or items of Telegraphic interest.

Our columns, as will be seen, are devoted first to the interest of the Union and its members, and then to Telegraphers and Telegraphing.

We respectfully invite Mr. CYRUS W. FIELD to furnish us with any items or information relative to the present and second attempt to lay the Atlantic Cable.

An invitation is also extended to officers of all Telegraph companies for information, statistics, or items of interest to Telegraphers.

THE readers of "The Telegrapher" will notice by the proceedings of the Convention that the amendment to the "Sick-relief" clause was not effected without a spirited struggle. The time occupied in its passage was over two hours. Several attempts were made to stave off a decision, but were indignantly voted down. The desire was general to decide the matter then and there. The struggle was between the Western and a portion of the Eastern delegates. The Western members were a unit for retaining the \$12 per week. Three, and we believe five, of the Eastern delegations were for reducing the amount to \$5. Washington and Baltimore, if we remember rightly, aided the West by desiring the amount left to the decision of the District or have the clause stricken out entirely. The West generously offered to compromise by inserting \$7, which was refused, and they then accepted Mr. YOUNG's insertion of \$6 in the original amendment.

The delegates then present will ever remember the joyous cheers and hearty applause which followed the settlement of this long contentious question.

It was not the intention of the original framer of this clause in the Constitution to make a bid for sickness, but to have it stand in the place of the good samaritan.

The Treasury of the Union is to its members what the Savings Bank is to the laborer, and when he needs to make a draft upon it, he can do so freely, as the Constitution and By-Laws provide, without the least feeling of asking charity. But we do protest, and we believe all the older members will join us in it, against a member wantonly demanding the benefits of this clause, whether he needs it or not, simply because the privilege is his; and on the other hand, we hope no member will have the slightest hesitancy to ask for this relief whenever he needs it.

WE hope all the Districts will take the same action towards the members of the Philadelphia District as the New York District did at their last meeting, for the magnificent manner in which they treated the several delegations to the Convention.

Personally, we can speak in the highest terms of their generous kindness, and would, did our space permit, give an account of the supper given by them to the members of the Convention. We hope to do so in our next, as we are promised a full account of the Convention and supper by one of the Western members.

We must commend the good taste of the Philadelphia members in excluding liquors from the festive board.

THE Convention very properly tendered its thanks to Mr. HASSON, of the Associated Press, of Philadelphia, for the very handsome manner in which he placed in a favorable light before the public, the proceedings in brief, of the Convention.

We desire, personally, to tender him our thanks for the kind advice and generous words of encouragement he gave us in connection with the publication of "The Telegrapher."

We commend him to the generous attention of all Telegraphers, for he is their friend.

THE attention of the members of the Union is called to the amendment of Sec. 2, Art. 7, of the Constitution. Hereafter members will be expelled for non-payment of District fines, the same as heretofore for the non-payment of Union dues.

If we remember rightly, Mr. R. J. BLACK moved the reconsideration of the Badge resolution, and offered the word "America" in place of the letters "O. K." on the globe, which was amended by Mr. J. J. FLANAGAN, who moved: "That the letters 'N. T.' be placed in the top space, and the word 'Union' on the globe"; and this amendment was adopted, but we notice by the minutes of the Secretary, that the reverse was the case.

Will some delegate inform us whether the Minutes or ourself is in error?

MEMBERS of Capt. Buckley's Corps of Telegraphic Engineers, just starting for British North and Russian America, have promised to correspond for "The Telegrapher."

We also hope to hear from our friends in California, Oregon and on the Isthmus.

A few advertisements of dealers in Telegraphic Materials will be received. For terms apply to the Editor.

REMITTANCES for "The Telegrapher" have been received from Baltimore, Washington, Albany, Louisville and Detroit.

(Continued from page 3)

Whereas, He has been notified repeatedly, by the President, of his neglect of duty, and has been besought by that officer to connect himself with some District and perform his duties as a member and officer, and to call upon him (the President) that something might be done in his (Aplin's) case, and has been invited by the mover of this resolution to join his (the mover's) District, to all of which the aforesaid Aplin has never made any reply, or taken any notice in any way whatever of the Union, its officers, or of their communications to him; and

Whereas, The conduct of said Aplin has wounded the dignity of this Union, deterred many Telegraphers from joining the Union, and treating with silent contempt all official communications addressed to him by officers of the Union; be it therefore

Resolved, That the said Aplin be, by this Convention, impeached for his constant and complete neglect of his official duties, and as a just punishment for the same, that he henceforth and forever be disqualified for membership in the Union, and that his name be stricken from the list of original members of the Union, to which it is attached, and that all delegates and members be requested to forget that he was ever honored by the Union in any way whatever; and that a copy of these resolutions, signed by the President and Recording Secretary, be furnished the Director of each and every District, with the order of this Convention, that they be posted in a conspicuous place on the walls of the meeting rooms of the several Districts and local Districts of the Union.

Adopted unanimously.

Mr. L. H. Smith offered the following resolution:

Resolved, That the "Rules of Order" attached to the first edition of the Constitution and By-Laws be repealed and Cushing's Manual of Parliamentary Rules be substituted as the guide to the proceedings of the Convention of the Union; and the President be and is hereby directed to procure a copy of the same, to be used at all times by the presiding officer of each and every Convention.

Mr. Black moved to insert "Mathias" in place of "Cushing's." Rejected.

The Resolution was then adopted.

Mr. L. H. Smith offered the following Resolution:

Resolved.—That, with the advice and consent of the Executive Committee, the Treasurer be and is hereby directed and empowered to invest in United States Bonds all the surplus funds of the Union over and above the current expenses. This to take effect at once, or as early as convenient.

Mr. G. S. Silsby moved to lay it on the table for future consideration. Adopted.

Mr. J. J. Flanagan offered the following Resolution:

Resolved.—That a Committee of three be appointed to suggest a suitable badge to be worn by the members of the Union, choosing to do so; the same to be provided at the expense of each member. Adopted.

The Chair appointed J. J. Flanagan, James Partrick, and T. A. Davin as said Committee.

Mr. L. H. Smith offered the following Resolution:

Resolved.—That the Recording Secretary, with the advice and consent of the President, be and is hereby directed to purchase two thousand envelopes, and cause the words "National Telegraphic Union" to be printed in neat and tasty type at the top of the same; and supply all the General Officers and the several District Directors with a number sufficient to properly carry on the duties of their several offices; and also to keep the supply good at all times; and

Resolved.—That the money for payment of the above supply be drawn from the treasury in the usual manner.

On motion the Resolution was laid on the table.

Mr. L. H. Smith again offered the following Resolution:

Resolved.—That the Treasurer, with the advice and consent of the President, be and is hereby directed to invest all the unappropriated balance for the current quarter in United States Bonds. This resolution to go into effect immediately.

Mr. T. A. Davin moved to lay the Resolution on the table. Motion rejected. On motion of Mr. Young, the subject was postponed until to-morrow.

Mr. L. H. Smith offered the following Resolution:

Resolved.—That it be the sense of this Convention that a General Officer shall not hold a District Office

Adopted.

Mr. W. H. Young moved to reconsider the vote whereby the subject of publishing a Review was postponed until to-morrow; Adopted. When the Committee on the Review made the following report: They reported the act offered by Mr. Smith with the following amendments:

In Section 1, insert the word New York in the blank space. In Section 2, erase the word "National." In Section 8, insert the word three in place of the word "two." Strike out Sections 10 and 11 in the original Act, and insert the following as Section 10: "The editor appointed will ascertain from the different Districts the exact number of copies they will subscribe for, and contract with a person or persons to publish the said Review. The subscription money to be forwarded by the different Districts, to pay for the first edition of the Review.

Section 12 to be Section 11.

Section 13 to be Section 12, and insert in the blank space "to be determined by the editor."

Sections 14 and 15 to be Sections 13 and 14.

Strike out the original 16th Section, and make Section 17 Section 15.

The Committee also recommend Mr. L. H. Smith, of New York for the position of editor.

The Report of the Committee, and the Resolution as amended by them, was adopted.

On motion, at ten o'clock, the Convention adjourned until to-morrow morning at ten o'clock.

Morning Session.

TUESDAY, Sept. 6th, 10, A. M.

Convention was called to order at 10 o'clock, A. M.

Minutes of the previous meeting read, and on motion adopted.

Mr. L. H. Smith, from Committee on President's Report, offered the following, which was agreed to: "The Committee appointed upon the President's Report have considered the same, and report favorably thereon, and recommend it be placed on file.

Amendments to the Constitution coming up as the special order, Mr. L. H. Smith offered the following amendment to Clause 3, Article 1:

"There shall also be District Organizations, the officers of which shall be a District Director, a District Secretary, and a District Treasurer for each District."

Clause 4. "There shall also be Local Organizations, each of which shall be governed by a Local Director. Clause 5 shall be the present Clause 4."

The subject was discussed by Messrs. Buckwell and Davin.

Mr. W. H. Young offered the following as a substitute, as an addition to Clause 3:

The District Organizations shall have power to elect all Officers, and to adopt such rules and regulations as they may deem necessary for the more perfect organization and government of said Districts, provided further that they shall not conflict with any rule or regulation adopted by the National Union.

During the discussion of this subject, the President stated that the Delegates from Nashville were present in the room, and he requested the Committee on Credentials, before appointed, to examine their credentials.

The Committee reported the following named persons entitled to seats: Messrs. B. B. Glass, W. B. Somerville, and A. S. Hawkins, representing 50 members—after which the substitute of Mr. Young was adopted.

Mr. L. H. Smith offered the following amendment:

To insert the words "twenty-one" instead of "twenty-three" in Clause 3, Section 1, Article 2, of the Constitution, which was adopted.

Also an amendment, adding an additional Clause to Section 1, Article 2, as follows: Clause 8. The expenses of the Delegates shall be borne by the Union, the bills for the same to pass through the course provided by Clause 3, Section 1, Article 4, of the Constitution. Which was adopted.

Mr. W. H. Young offered the following amendments:

To strike out 1st section of Art. 7, and substitute the following:

All matters pertaining to the payment of benefits to sick members shall be regulated by the District organization wherein the sick member resides.

Provided further, That the sum paid for such purpose shall not exceed the sum of five dollars per week, to be paid from the funds of the National Union.

Which, on motion of Mr. C. W. HAMMOND, was laid over for future consideration.

Mr. L. H. SMITH, offered the following amendment to clause 4, sec. 3, art. 2.

The Convention shall keep a Journal of its proceedings and publish such portions as is deemed proper by the President, in "The Telegrapher," after each meeting.

Which was adopted.

Mr. M. D. BUCKWELL offered the following amendment to Art. 1, Sec. 1.

CLAUSE 5. That an Auditing Committee of three be appointed by the President, at each National Convention, whose duties it shall be to examine into the accounts of the Treasurer, and attend to all other duties appertaining to their office.

Present Clause 5 to be Clause 6.

Which was adopted.

Mr. L. H. SMITH offered the following amendments, as an addition to Section 1, Art. 3, Clause 5:

The newly elected officers shall assume the duties of their several offices immediately after the final adjournment of the Convention at which they were elected.

Which was adopted.

Mr. W. H. YOUNG offered the following amendment:

Insert in place of Sec. 2, Art. 7:

Any member of the Union who shall have neglected to pay his dues for more than six months shall not be entitled to speak or vote upon any subject, except to offer an excuse for such delinquency, and if he shall fail, for twelve months, the District Directors shall notify him, and if not paid within one month after such notification, he shall at once report the same to the District, when he may be dropped from the roll or suspended, by a two-thirds vote of the members of the District; but he may be reinstated on payment of all arrearages, by consent of the District.

After discussion, Mr. L. H. SMITH offered the following as a substitute:

If any member shall refuse or neglect to pay either his Union dues or District fines for the period of six months, he shall be expelled from membership, as provided in Sec. 2, Art. 7; not three fourths voting in the affirmative, the substitute and original amendment were both rejected.

Mr. T. A. DAVIN offered the following amendment as an additional clause to Sec. 2, Art. 7:

Any person expelled from the Union, by failure to pay dues for a period of six months, may be re-admitted by the payment of all regular dues accruing from date of expulsion up to time of re-admission.

Which was adopted.

Mr. W. H. YOUNG offered the following amendment as an addition to Clause 3, Sec. 1, Art. 3:

Every member of the Convention present when a motion is stated and the question put, or on taking the ballot for officers or membership, shall be required to vote, unless excused by action of the meeting.

Which was adopted.

Mr. L. H. SMITH offered the following amendment-substitute in place of Clause 1, Sec. 1, Art. 7:

1. When any member shall become incapacitated for the performance of his usual duties by any sickness or accident that does not proceed from immoral conduct, he shall, if he desire, receive the sum of five dollars per week, after the first week, until his malady or accident terminates in restoration, or death, unless by report of an investigating committee he be deemed, after a lapse of time, to be unworthy or disqualified, or it be considered inexpedient longer to continue such payment.

2. A member desiring such assistance shall make application through his local Director, who, if he deem the case worthy of consideration, shall report the same favorably to the District Director, who shall appoint a Committee of three to investigate the case, and report to him if the member be worthy of help, and if so, to what amount; and upon the receipt of such report the District Director shall submit it, with his recommendation, to the President, who will order the Treasurer to pay, through the Director of the District to which the applicant belongs, the sum decided upon.

On motion of W. B. SOMERVILLE, the consideration of the resolution was postponed until this evening.

At 12 o'clock, on motion, the Convention adjourned until 2 o'clock.

THE TELEGRAPHER.

Afternoon Session.

TUESDAY, September 6th, 2 o'clock, P. M.

Convention called to order at 2 o'clock, P. M., by the President.
Minutes of the previous meeting read and adopted.

A communication received and read by the Secretary from R. J. Black, District Director of Philadelphia, inviting the members of the Convention to dine with the members of the Philadelphia District on tomorrow (Wednesday) evening, at the St. James Hotel.

Mr. J. J. Flanagan moved the invitation be accepted, and that the President appoint a committee of three to notify them of our acceptance, which was adopted, and the Chair appointed Messrs. J. J. Flanagan, M. H. Redding, and W. B. Somerville, as the committee.

Mr. R. J. Black moved to take up the resolution offered by Mr. L. H. Smith, in relation to selecting a Seal, as follows:

Resolved.—That the Executive Committee be, and are hereby directed, to at once decide upon a design for a Seal, and cause the same to be engraved at once.

Resolved.—That the same Committee be, and are hereby directed to cause the Constitution of the Union to be handsomely inscribed upon parchment and framed, and the same with the Seal to be disposed of in accordance with Clause 4, Art. 10, of the By-Laws. Motion adopted.

Mr. R. J. Black moved to amend by striking out all that part of the resolution in relation to engraving the Constitution, which was adopted.

Resolution as amended.

Resolved.—That the Executive Committee be, and are hereby directed to at once decide upon a design for a Seal, and cause the same to be engraved at once; to be disposed of in accordance with Clause 4, Art. 10, of the By-Laws, was, after discussion between Messrs. Black, Smith, Davin, Buckwell and others, adopted.

Mr. L. H. Smith offered the following amendment to Clause 1, Sec. 1, Art. 8, so that it shall read as follows.

Main Telegraph offices containing five or more members shall constitute the nucleus of a District, and offices containing two or more, and less than five members shall constitute a local district, and must class themselves with some near District, themselves to choose the District, which was adopted.

Mr. G. S. Silsby offered the following amendment to Clause 1, Sec. 2, Art. 9.

Upon being admitted a member of this Union each person shall pay into the Treasury, through the local Director, the sum of one dollar and twenty-five cents, which shall entitle him to a certificate of membership, which was adopted.

Mr. L. H. Smith offered the following amendment to Clause 2, Sec. 2, Art. 9. Insert the following words, "Six dollars per year," in place of the words, "one per cent. of the whole amount of his salary," and the words, "in advance," to close the clause.

Mr. T. A. Davin moved to amend the amendment and make it "payable monthly in advance."

Mr. R. J. Black moved to amend Mr. Davin's amendment, by striking out the words, "in advance." After discussion of the subject by Messrs. Black, Young, Flanagan, Somerville and others. Mr. R. J. Black's amendment was rejected, not three fourths voting in the affirmative.

Mr. T. A. Davin's amendment was also rejected.

Question recurred on Mr. L. H. Smith's original amendment, which, after considerable discussion was amended by Mr. A. Wilson, Jr., offering as a substitute, That the following words be inserted, "The sum of six dollars per year to be collected by the Local Director, monthly or quarterly, as the District Director may deem advisable."

The substitute was adopted.

Mr. L. H. Smith offered the following amendment to Art. 12. To insert the words "Executive Committee" in place of the words, "President, Vice-President, and Recording Secretary," which was adopted.

Mr. W. Steinhoff moved to reconsider the vote, whereby the following amendment was rejected, to Clause 1, Sec. 2, Art. 7.

If any member shall refuse or neglect to pay either his "Union" dues or his District fines for the period of six months, he shall be expelled from membership, as provided in Sec. 2, Art. 6, of the Constitution.

The motion to reconsider was adopted, and after a few remarks by Messrs. Smith and Buckwell the amendment was adopted.

Mr. L. H. Smith offered the following amendment to Clause 2, Sec. 2, Art. 5, of the By-Laws.

The district and local organizations shall pay all expenses other than books and stationery, necessary to carry on the same in accordance with the Constitution and By-Laws of the Union, which they may incur in the formation of such organizations; such expenses to be collected as they may deem advisable, which was adopted.

Mr. W. Steinhoff offered the following amendment to Art. 5, Sec. 1.

The Treasurer shall receive for his services, if satisfactorily performed, the sum of one hundred dollars per year, payable quarterly.

M. A. H. Seymour moved to lay the amendment on the table. Motion rejected.

The amendment was then rejected, not three fourths voting in the affirmative.

Mr. J. J. FLANAGAN offered the following amendment:

To strike out all of Clause 1, Sec. 1, Art. 6 of the Constitution following the word "position."

Discussed by Messrs. HAMMOND, SMITH, and others; after which Mr. L. H. SMITH offered, as a substitute for Mr. FLANAGAN's amendment, to strike out "three," and insert "two" in the same clause.

The substitute was rejected, as was also the amendment offered by Mr. FLANAGAN.

Mr. W. STEINHOFF offered the following amendment:

To strike out Clause 2, Sec. 1, Art. 5 of the By-Laws.

The amendment was advocated by Mr. L. H. SMITH, and opposed by Mr. T. A. DAVIN, and was rejected.

Mr. T. A. DAVIN offered the following amendment:

In Art. 6 of the By-Laws, strike out the words, "shall be known to be an imbecile."

Which was adopted.

Mr. KOERNER offered an amendment to insert the word "who" in place of the word "or," in the same article.

Which was adopted.

Mr. G. S. SILSBY offered the following amendment to the By-Laws:

Any Brother whose long and faithful services shall, in the opinion of the members, entitle him to the consideration and gratitude of this Union may be admitted an Honorary Member; Provided he shall have been proposed by a Brother in good standing, and shall receive an unanimous vote. Honorary Members shall not be subject to assessments.

The amendment, not being in order, was laid over to be called up in order.

Mr. M. D. BUCKWELL moved to take from the Secretary's table the following resolution:

Resolved., That the Treasurer, by and with the advice and consent of the President, be and is hereby directed to invest all the unappropriated balance for the current quarter in U. S. Bonds. The resolution to go into effect immediately. It was taken up, and adopted.

Mr. T. A. DAVIN offered the following amendment to See 2, Art. 14

To insert the word "two-thirds" in place of the word "three-fourths."

Amendment rejected, not three-fourths voting in the affirmative.

Mr. L. H. SMITH offered the following resolution:

Whereas, The first edition (one thousand copies) of the Constitution and By-Laws being exhausted; be it therefore

Resolved, That the President be directed to cause an edition of five hundred copies, with the amendments, to be printed at once, and have them held by the Recording Secretary, subject to the orders of the President and the several District Directors.

Which was adopted.

Also the following;

Resolved, That the Executive Committee be and are hereby directed to make inquiries as to the advantages or disadvantages of a State Charter for the Union; and if the advantages are sufficient to warrant it, they are hereby directed to procure one from the Legislature of

Which was adopted.

On motion, at 5 o'clock, the Convention adjourned until 8 o'clock this evening.

Evening Session.

Tuesday, September 6th, 1864, 8 o'clock P. M.

Convention was called to order at eight o'clock, P. M.

The minutes of the previous meeting were read, and on motion, adopted.

Mr. J. J. Flanagan, from the Committee on the badge, made the following report: The Committee who were appointed on the subject of a badge to be worn by the members of this Union, beg leave to report as follows;

The design offered by Mr. Partrick is suggested for adoption by the Convention. It consists of a shield of a suitable size, containing on its surface a neat scroll border, a hand grasping flashes of lightning, resting on a globe; the word "America" or the expressive letters "O. K." on the globe, with the letters "N. T. U." on the upper part of the shield, and a blank space on the lower end for the initials of members; the outer border, hand, and lightning flashes, and globe twelve carats fine, \$3.75. Plain gold, \$6.50.

The Committee have called on two of the principal badge manufacturers in the city and have received the following estimates;

Estimate by Jacob Somerset, 521, Chestnut Street;

Badge according to the above or similar design, sixteen carats gold, enamelled border, hand and letters, \$7.50. Ditto in silver, plain, \$2.75. Ditto in silver, with gold bands, hands, and lightning flashes, and globe twelve carats fine, \$3.75. Plain gold, \$6.50.

Mr. Leans, a larger manufacturer, makes the following far more reasonable estimate;

Sixteen carats gold, with blue enamelled border, hand, and letters, \$4.00.

Plain gold, \$3.50.

Owing to the lateness of the hour, during which the Committee had time to call on the manufacturers, no other estimate could be obtained.

Respectfully submitted,

J. J. FLANAGAN, }
T. A. DAVIN, } Committee.

On motion, the Report of the Committee was accepted, and placed on file for future consideration.

The following Resolution offered by Mr. L. H. Smith, being the special order for the evening, was taken up and considered.

Resolved.—That the following Clause be substituted for Clause 1, Sec. I. Article 7, of the Constitution.

1. When any member shall become incapacitated for the performance of his usual duties, by any sickness or accident that does not proceed from immoral conduct, he shall, if he desire, receive the sum of five dollars per week, after the first week, until his malady or accident terminates in restoration or death; unless by report of an investigating Committee he be deemed, after a lapse of time, to be unworthy, or disqualified, or it be considered inexpedient longer to continue such payment.

2. A member desiring such assistance, shall make application through his local Director, who will report the case to the District Director, who, with his Council, shall decide upon the application, and report the same to the President, who, if he entertain the application, shall order it paid.

The subject, in all its bearings, was fully discussed by Messrs. Hammond, Flanagan, Buckwell, Young, Smith, Wilson, and Davin.

Mr. A. Wilson, jun., offered a substitute, as follows;

Whenever any member shall become incapacitated for the performance of his usual duties, by any sickness or accident that does not proceed from immoral conduct, he shall, if desired, and condition demands it, receive aid; the amount in all cases, to be left to the discretion of the District to which such member belongs.

Mr. W. H. Young moved to amend Mr. Wilson's substitute, as follows;

All matters pertaining to the payment of benefit to sick members, shall be regulated by the District Organizations wherein the sick member resides; provided further, that the sum paid for such purpose shall not exceed the sum of five dollars per week, to be paid from the funds of the National Union.

Which, together with the substitute of Mr. Wilson, was rejected.

Mr. Mattocks moved to adjourn. Convention refused to adjourn.

THE TELEGRAPHER.

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Mr. Jas. Partrick offered the following, as a substitute for Mr. Smith's Resolution, Whenever any member shall become incapacitated for the performance of his duties, &c., he shall, if desired, and condition demands it, receive aid; the amount not to exceed twelve dollars per week, in all cases to be left to the discretion of the District to which such member belongs.

Rejected.

Question recurred on Mr. Smith's original Resolution, which after a long and spirited discussion, participated in by nearly every delegate, was rejected.

Mr. M. D. Buckwell, by unanimous consent was allowed to speak on the subject, and he proceeded to urge the members of the Convention to agree upon the adoption of some measure, changing the present Clause to a lower figure, and hoped they would be able to agree upon some one of the amendments.

Mr. J. J. Flanagan offered Mr. Smith's original amendment, with the word "seven" inserted in the place of the word "five."

Mr. R. J. Black spoke at length in opposition to this amendment.

Mr. W. H. Young moved to amend the amendment by inserting "four," which was rejected, as was also the amendment of Mr. Flanagan.

Mr. W. H. Young then moved to strike out the Clause entirely.

Rejected.

Mr. A. Wilson, Jr., offered the following amendment:

Resolved, That Art. 7, Sec. 1, of the Constitution be stricken out until our next annual meeting, when the Treasury will be in a condition to consider the beneficiary clause.

Rejected.

Mr. W. H. Young offered Mr. Smith's original resolution, with an amendment inserting "six" in place of "five."

Which was unanimously adopted; accompanied by immense applause.

Mr. J. J. FLANAGAN offered the following resolution:

Resolved, That the design of the Badge suggested by the Committee, be accepted by this Convention; and is recommended to the members to be worn by them.

Resolved, That these Badges must be procured through the Treasurer, who is hereby authorized to cause them to be manufactured at the lowest possible price by some competent person or persons; the same to be paid for by those ordering them.

Resolved, That the Treasurer request the manufacturer not to make any Badge of the design adopted, unless ordered by him.

Adopted.

Mr. A. Wilson, Jr., offered the following resolution:

Resolved, That the next annual meeting of the N. T. U. be held in the Monumental city—Baltimore.

Several delegates named different points, and finally the subject was postponed until to-morrow.

Mr. R. J. BLACK moved to re-consider the vote adopting the Badge resolution of Mr. FLANAGAN.

Agreed to; when suggestions were proposed. One by Mr. FLANAGAN, and adopted, to place the letters "N. T." on the top, and the word "Union" on the globe at the bottom. Also one by Mr. R. J. BLACK, adopted, leaving off the letters "O. K." and inserting the word "America."

The resolution, as amended, was then passed.

Mr. L. H. Smith offered the following resolution:

Resolved, That a Committee be appointed to decide upon a suitable motto for the Union, which shall be used at all times.

Adopted.

Also the following resolution:

Resolved, That it be the sense of this Convention that hereafter, whenever practicable and wise, District Directors should be elected as one of the delegates to the Convention of the Union.

Adopted.

Also the following resolution:

Resolved, That after the adjournment of this Convention the President, with the advice and assistance of the Executive Committee, shall promptly and strictly enforce, and cause to be enforced, all punishment for offences, both of officers and members, as provided by the Constitution and By-Laws of the Union.

Adopted.

On motion, at 10 o'clock, the Convention adjourned until 9 o'clock tomorrow morning.

Morning Session.

WEDNESDAY, September 7th, 1864.

The Convention was called to order at 9 o'clock.

On motion, the reading of the Minutes of the previous meeting was dispensed with.

Mr. L. H. Smith offered the following amendment to Clause 4, Sec. 1, Art. 2 of the Constitution;

The number of delegates shall not exceed one for every twenty-five members, but each District shall have at least one delegate, and one extra delegate when the exact proportion shall be ten members in excess, to be elected as follows:

Adopted.

Mr. J. J. Flanagan offered the following amendment to Clause 5, Art. 4:

And shall report in full, yearly, to the Convention. Adopted.

Mr. L. H. Smith offered the following resolution:

Resolved, That when this Convention adjourns finally it be to meet in St. Louis, Mo., on the first Monday in September next, at 2 P. M., as provided in the By-Laws.

Mr. J. J. Flanagan moved to amend by inserting Chicago in place of St. Louis.

Amendment of Mr. Flanagan adopted, after which the resolution was agreed to.

Mr. M. D. Buckwell offered the following resolution:

Resolved.—That the sincere thanks of this Convention, the members of the Telegraphic Union, and of Telegraphers generally, are due, and are hereby tendered to the heads of the different Telegraph Companies throughout the United States, for the spirit of magnanimity and justice they have shown towards their employees.

Resolved.—That, recognizing the fact, that the interests of the Companies and their employees are identical, we hereby declare our willingness at any and all times to lend our full co-operation to any measure that will further the interests of the Companies, or advance the Science of Telegraphing.

Resolved.—That the Corresponding Secretary be directed to furnish a copy of the above Resolutions to the General Officers of all the Telegraph Companies throughout the United States.

Adopted.

Mr. J. J. Flanagan offered the following Resolution:

Resolved.—That a vote of thanks be and is hereby tendered to our worthy Vice-President, Mr. C. W. Hammond, for the courteous, able, and impartial manner in which he has performed the duties of Chairman, in the absence of the President.

Resolved.—That the Corresponding Secretary be ordered to prepare a copy of the above Resolution properly engrossed.

Adopted.

Mr. Hammond briefly returned thanks for the honor conferred.

Mr. J. J. Flanagan offered the following:

Resolved.—That the thanks of the Convention are due to Mr. Hasson for his kindness in causing to be transmitted and published an abstract of the proceedings of this Convention.

Resolved.—That the Corresponding Secretary be requested to furnish Mr. Hasson with a copy of this Resolution.

Adopted.

Also the following resolution:

Resolved.—That a vote of thanks be, and is hereby tendered to the retiring officers of this Union, for the faithful and able manner in which they have performed their duties.

Resolved.—That the Corresponding Secretary be requested to forward to each of the above-named officers a copy of the above resolution. Adopted.

Also the following:

Resolved.—That the Secretary *pro tem.*, Mr. W. H. Young, is entitled to the sincere thanks of each member of this Convention, for the courteous and gentlemanly manner in which he has performed the arduous duties of his position.

Resolved.—That the incoming Corresponding Secretary be requested to furnish Mr. Young with a copy of this resolution. Resolution adopted, after which Mr. Young returned his thanks.

At ten o'clock the Convention adjourned until eight o'clock this evening.

Evening Session.

WEDNESDAY, September 7th, 1864.

The Convention was called to order at eight o'clock. Only twelve members present. There being no quorum, on motion, a committee of one, Mr. W. Steinhoff, was appointed by the Chair to hunt up the absentees and bring them in.

In a few minutes a sufficient number of members arrived to constitute a quorum.

The minutes of the previous meeting were read and adopted.

Mr. J. J. Flanagan offered the following resolution:

Resolved.—That the Corresponding Secretary be directed to prepare, and engross in a suitable form, and transmit to the District Director of the Philadelphia District, a resolution expressing, in the strongest possible words, the high appreciation which each member personally and officially has of the kind and fraternal manner they have been received and entertained by each and every member of the Philadelphia District.

The resolution was adopted amid great applause, every delegate rising to his feet and giving nine cheers and a tiger!

Mr. R. J. Black, in behalf of the Philadelphia District, made a few remarks, thanking the members of the Convention, and in conclusion he read a communication from the Press Club of Philadelphia, as follows:

"At a meeting of the Press Club of Philadelphia the following was adopted:

Resolved.—That the Press Club of Philadelphia sends its heartiest congratulations to the National Telegraphic Union now in session in this city, and propose the following sentiment:

"The Press and the Telegraph."

"United alike in interest and in labor, they serve to illumine the world. May the continuity of the circuit now existing between them ever continue unbroken."

THOS. W. COLEMAN,

President."

WM. H. FISHER, Jr., Secretary.

Which, on motion of Mr. Black, was ordered to be entered on the records of the Convention.

At nine o'clock on motion of Mr. L. H. Smith, the Convention adjourned *sine die*.

Immediately upon adjournment the delegates and the members of the Philadelphia District, headed by the Director of the Philadelphia District, with President Hammond on his right, and President Coleman, of the Press Club, on his left arm, marched in couples to the supper room of the St. James, where was spread a splendid supper in compliment to the delegates, by the members of the Philadelphia District.

TELEGRAPHS IN EUROPE.

A comparative estimate, just published, shows that the telegraphic lines in France comprise 98,446 kilometres (each five-eighths of a mile) of wire, and 1,301 offices, which transmit about a million and a half private despatches a year, and nearly half as many official ones. Russia has 48,884 kilometres of wire; Austria, 29,640; Italy, 25,561; Prussia, 32,273; Spain, 28,665; Belgium, 6,238; Switzerland, 4,960. In Spain and France the Telegraphs are under the control of the Minister of the Interior. In Russia, Prussia and Italy they belong to the Ministry of Public Works.

THE RUSSIAN AMERICAN TELEGRAPH LINE.

The first working party connected with Capt. Bulkley's great expedition for the construction of the Russian and American Telegraph Line left New York on Saturday last, on the steamer Golden Rule, for San Francisco, via Nicaragua. The party consists of Mr. Conway, Telegraphic Engineers, and a number of assistants, who, under the directions of Capt. Bulkley, will proceed to various points in British Columbia to make the necessary surveys preparatory to more active operations next spring.

THE TELEGRAPHER.

PROCEEDINGS OF THE NEW YORK DISTRICT.

NEW YORK, September 13th, 1864.

The Regular Monthly Meeting of this District, which was postponed until this evening, owing to the Convention which was in Session on our regular meeting night, did not take place; the twelve members present not constituting a quorum.

It was decided to call a Special Meeting for Friday evening next, 16th inst.

NEW YORK, September 16, 1864.

SPECIAL MEETING.

The meeting was called to order at half-past eight P. M. by the District Director. Seventeen members present.

The minutes of the previous—the Annual—meeting were read and approved.

The District Director read his Monthly and Annual Report.

The Annual Report of the District Treasurer, Mr. W. H. Collins, was read and accepted.

The Director announced that he had the names of eight applicants for admission to membership, and suggested the suspension of Clause 1, Article 5 of the Local By-Laws in order to elect these applicants.

Mr. Ex-President J. G. Smith moved that the clause in the local By-Laws, requiring the names of the applicants for membership to be proposed in open meeting one month before their election, be suspended for this occasion. Adopted.

The Director read the following names of applicants: Ransom Phelps, proposed by D. R. Downer; R. B. Lown and W. B. French, proposed by R. M. Mattocks; J. B. Oltman and H. S. Knapp, proposed by L. H. Smith; J. W. Fish, proposed by M. K. Tompson; E. D. Farr, proposed by A. J. Burton; and Geo. J. Bascom, on personal application to the Director.

Mr. D. R. Downer moved the above-named persons be elected by acclamation. Adopted.

The above-named persons were unanimously elected members of the Union.

The Director announced, that in consequence of the removal of the present District Secretary, Mr. F. L. Pope, from this city, it would become necessary to elect a successor.

Mr. D. R. Downer was elected District Secretary, vice Mr. Pope, resigned.

The Director called the Local Director, Mr. J. C. Christie, to the Chair, and, as Chairman of the Delegation from this District to the Convention at Philadelphia, read his report of their own and the Convention's doings. Report was accepted, and ordered to be placed on file.

Mr. J. G. Kendall moved a vote of thanks to the Delegates for the able manner in which they performed their duties. Carried unanimously.

Mr. Ex-President J. G. Smith moved that the Chair appoint a Committee of two (Messrs. J. A. Cure and W. H. Collins) to draw up resolutions upon the death of Mr. Harry Stanley, who was a member of this District. Unanimously adopted.

Mr. Ex-President Smith also moved that the Chair appoint a Committee of three to draw up a resolution of thanks to the members of the Philadelphia District for their generous treatment of the Delegates to the late Convention. Carried unanimously.

Messrs. Ex-President J. G. Smith, J. G. Kendall, and W. Steinhoff were appointed such Committee.

Mr. Ex-President Smith also moved that a Committee be appointed by the Director, to solicit subscriptions for the forthcoming Review. Carried.

Mr. John C. Christie moved, that Geo. W. Clarke, a member of this District of the Union, be expelled for non-payment of dues, for a period of 6 months. Carried.

Mr. J. C. Christie also moved, that Clause 1, Art. 5, of the local By-Laws be stricken out. Carried.

Mr. Christie also moved, that Sec. 2, Art. 7, of the Constitution of the Union be inserted as Clause 3, Sec. 2, Art. 4, of the local By-Laws.

This Section is as follows:

"If any member shall refuse or neglect to pay his Union dues, or District fines for the period of six months, he shall be expelled from membership."

Mr. Ex-President Smith moved, that Mr. M'Aneny's excuse for non-payment of dues be accepted. Carried.

The meeting then adjourned.

L. H. SMITH, *District Director.*

F. L. POPE, *District Secretary.*

At a Meeting of this District of the National Telegraphic Union held on Friday, Evening, 16th instant, the following Resolutions were presented by the Committee appointed for the purpose, and unanimously adopted.

Resolved, That it is with the most sincere regret that we mourn the loss of our late Professional Brother, Harry Stanley, Esq., who died in the city of Troy, N.Y. August 22d.

Resolved, That while deeply lamenting the loss of our late beloved fellow-member, who, as well as a finished and skilful operator, was a most courteous and amiable gentleman, who had by his urbanity and gentleness endeared himself to his associates—we tender our heartfelt sympathies to his bereaved family, and meekly bow before that Great "Operator" of the Universe who "makes up all our circuits," and who has seen fit to afflict us.

Resolved, That a copy of these resolutions be forwarded to the family of our late Professional Brother, and published in the Troy papers.

J. A. CURE, } Committee
W. H. COLLINS, } on Resolutions.

NEW YORK, Sept. 16th, 1864.

[From the Louisville Journal, August 30th.]

AMONG the many excellent movements which have recently been made for the intellectual, social and business improvement of professional persons, the formation of a National Union, by the Telegraph Operators of the country, appears to us to be the most important. The phonographer and the magnetic telegrapher have become of commanding importance to the press, and consequently to all classes of society. Upon their accuracy and fidelity depends the diffusion of historic truth. As may be presumed, the object of the telegraph operators in forming their National Union, is the advancement of their general interests, and the elevation of the standard of the profession which is productive of so much benefit to the business community. The preliminary organization was made in New York last November by a few of

the operators of that city, but since that time it has increased in numbers and strength with great rapidity.

Branch Districts have been formed in all the States of the Union, from Maine to Salt Lake City, and the number of applicants for admission is greatly increasing. The purposes of the Union are the supporting of its members in sickness and adversity, the elevation of the character and standing of the profession, and the advancement of the general interests of the fraternity in manner that will produce beneficial results to the employers and employed. A fund for the support of operators in sickness, or while out of employment, is provided by a pro rata assessment on all the members, according to the salary which they receive.

All members are pledged to exert themselves to obtain employment for such as are in need of it and deserving. As the peculiar nature of the business calls most of those persons engaged in it from their homes and friends, this provision will be of great benefit to those who, while among strangers, are stricken down with sickness.

By the rules of the Union no person is allowed to receive instruction from members who are not properly qualified and capable of performing correctly and creditably the responsible duties of the art. Of late years many persons claiming to be proficient have obtained employment by such means, and not only brought discredit upon themselves, but upon the whole profession by their blunders and incapacity.

If a proper and judicious course is pursued by the members of the Union, much good must result to themselves, and the interests of the telegraphs of the country will be greatly advanced. What will be to their interests will also be of profit and gain to the public; for, unless correct and reliable operators are to be had, but little service can be gained by the use of the telegraph—now almost indispensable in every day business life.

A branch of the National Union was formed in this city about three months ago. Operators from all parts of the State are included in the District, and some have already reaped the benefit of joining it by being cared for in sickness. On the first of the month two delegates were elected, Messrs. Ellison and Flanagan, the chief operators of the Southwestern and Western Union Companies in this city, to represent the interests of the District in the National Convention to be held in Philadelphia on Monday the 5th prox. The District is in a very flourishing condition, and numbers among its members the best telegraphic talent of this State and of Indiana. All good operators should join the association, and thus not only advance and improve their own interests and standing, but aid in perfecting the general advancement of the useful art of telegraphing. Applicants for member ship should apply to Mr. Z. Morris, District Director.

[From the New York Tribune.]

THE ATLANTIC TELEGRAPH CABLE COMPANY.

The annexed correspondence and well deserved complimentary resolutions of the Board of Managers at London will be read with interest by the numerous friends of General Lefferts, the Engineer and General Manager of the American Telegraph Company in this city:

ATLANTIC TELEGRAPH COMPANY, London, July 16, 1864.

General MARSHALL LEFFERTS, New York:

Dear Sir, I am desired by the Directors of the Atlantic Telegraph Company to convey to you, through their respected colleague, and our mutual friend, Mr. Cyrus W. Field, the appended extract from the minutes of their proceedings—and, looking to the sincere desire which we all feel to associate with this great work everything that is highest and worthiest in the telegraphic world, it is hoped that I shall receive, in due course, your assent to the arrangement contemplated in the resolution.

I have the honor to be, dear sir, your faithful servant,

GEORGE SAWARD,
Secretary and General Superintendent.

[Extract from the minutes of the Managing Committee of the Atlantic Telegraph Company, dated July 15, 1864.]

"Resolved—Unanimously, on the motion of the Chairman of the Company, the Right Hon. James Stuart Wortley, Q. C., seconded by Mr. Curtis M. Sampson—that General Marshall Lefferts be invited to allow his name to be associated with this undertaking, as the Honorary Consulting Engineer to the Atlantic Telegraph Company, resident in America."

ENGINEER'S OFFICE, AMERICAN TELEGRAPH CO., }

NEW YORK, September 19, 1864. }

GEORGE SAWARD, Esq., *Secretary and General Superintendent, Atlantic Telegraph Company, London:*

Sir.—I have the pleasure to acknowledge the receipt of your letter of the 16th July, with resolution of the Board of Directors, inviting me to associate my name with them as Honorary Consulting Engineer to the Atlantic Telegraph Company. Through the absence of Mr. Cyrus W. Field from this city your letter did not reach me as soon as it otherwise would have done, which is my apology for not making an earlier acknowledgment.

I have every confidence in the success of the present attempt to lay the "world-renowned" cable, and that all of those who have so earnestly labored in sustaining and bringing forward the work will realize a noble reward and profit. I need not say, therefore, how much I esteem the honor conferred by your honorable Board, in being associated with them in this great telegraphic undertaking.

We want but this one and great link in the chain to realize the dream of science, and the practical, far-seeing reach of commerce.

You will please make known to the Chairman of the Board, the Right Honorable James Stuart Wortley, Q. C., my acceptance; and thanking you for the courteous terms in which you have conveyed the action of the Committee of Management,

I am Sir, your obedient servant,

(Signed,) —————

MARSHALL LEFFERTS.

THE WHITE MOUNTAINS.—The latest letter from the Glen House says: "We have now telegraphic communication with the 'lower regions,' affording our visitors much satisfaction in being thus able to correspond with their friends. I give an extract of our 'tip top' tariff:—Ten words or less to Crawford House \$0.90; to Glen, 0.95; Gorham, 1.00; Concord, 1.25; Boston, 1.55; New York, 2.10; Phila. 2.35.

In the Irish Language the Electric Telegraph is called "Sgeol abada boita," which in English means "news on stilts."

THE TELEGRAPHER.

"Canst thou send lightnings, that they may go and say unto thee, Here we are?"—Job xxxviii, 85.

N. T. U.

"I'll put a girdle around about the earth in forty minutes."—Shakespeare.

Vol. I.

New York, Monday, October 31, 1864.

No. 2.

COLLINS' OVERLAND TELEGRAPH.

Our readers undoubtedly are aware that an expedition is fitting out in New York to carry out the grand idea of connecting, by a line of Telegraph, mostly overland, the two great continents. A few facts, of a mere outline character, to suit the limited space of our columns, may be of interest.

The world is indebted to P. McD. Collins for the grand inception of telegraphically connecting the two great continents by the way of Russia, Kamtschatka, crossing Behring's Straits, thence through the Russian American Possessions to Washington Territory, where the lines already built will be connected thereto. That the plan was and is feasible, we have abundant evidence in the fact that such eminent telegraphers as J. H. Wade, President of the Pacific Telegraph, Hon. Hiram Sibley, President, and Col. Anson Stager, Superintendent of the Western Union Lines, most heartily endorsed it, and have given it their unqualified encouragement. The government of the United States, fully alive to the importance of the proposed line, has, through its officials at Washington, in the Navy Department, and through the officials connected with the Treasury Department, endeavored to facilitate the expedition, and to this end has placed at its disposal a vessel fully armed and equipped, as a representative of our flag, and, if need be, to protect the members thereof in such foreign waters as its course may lead them. The gentlemanly members of the Coast Survey Bureau, at Washington, have most earnestly entered into the objects of the expedition, knowing that results will be practically arrived at, during its progress, of the utmost importance to that branch of the public service, as well as to science and the world. The Smithsonian Institute also has been very marked in its liberality in furnishing data from old works, maps, and charts in the possession of that excellent National Institution.

To give our readers an idea of the vastness of the expedition soon to start for the frigid regions, an epitome of the material now being collected will suffice:

Two ships have been purchased, on board of which are now being placed immense quantities of all kinds of telegraphic material:—wire, insulators, instruments, batteries, tools, &c. These ships will be officered and manned by men of large experience as Arctic navigators and seamen, and the vessels themselves will, on arriving in those regions, but renew an acquaintance with an element familiar to them on former whaling cruises.

A brig has also been purchased; also, two large schooners, one of the latter being a very fast yacht of elegant model. A small light draught steamer has also been placed on board one of the above-mentioned ships, which is intended to be used in the exploration of shallow rivers and streams, and also as a tender to the fleet.

Two ocean steamers have been purchased, and will be used in connection with the expedition, in promptly transporting supplies, laying cables, etc. Thus the fleet will comprise an armed naval vessel, two ocean steamers, two ships, a brig, two schooners, and the tender—eight crafts in all—engaged in the peaceful mission of connecting the great emporiums of the old and new world by lightning.

There will be employed a large number of persons, particularly selected for their fitness and adaptation to the work required. The number of laborers alone will reach some three hundred. An efficient corps of telegraphic engineers, draughtsmen, topographical engineers, and others of attainments essential to success will accompany the expedition, and it is only necessary to say, in this connection, that gentlemen of the highest merit, and of ample experience in their distinctive departments, have been selected.

The first delegation has already been sent to San Francisco, under the charge of Mr. Edward Conway, which will it is expected, make explorations as far as possible during the next three months up the Frazer River and adjacent country. The main expedition will not leave San Francisco until about the first of March next, prior to which time the whole fleet will have arrived at that port. A large number of the members of the expedition will leave this port on the vessels belonging to the fleet, but the leading members thereof will reach San Francisco via the Nicaragua route.

The number of maps, charts, books, and other printed matter it has been necessary to con over, compare, and to make notes and extracts from, in order to furnish as much information to the leaders of the expedition as possible before their arrival upon the various localities, would appal any but an indefatigable student. Several

very important maps and charts have been drafted, none of which have been taken bodily from any one of the heretofore recognized authorities, but compiled from a variety of sources, some of which date back to 1797. A large map on the polyconic plan has been executed by Mr. Frank L. Pope, to be used by the expedition, which contains portions of the two hemispheres never before placed upon paper in this shape. It is considered by competent judges a *chef d'œuvre* of draughting, and by those who have traveled somewhat in that region, as the most accurate map extant. Several are in existence, but all have been found more or less subject to criticism for known defects; but these defects have been carefully avoided and rectified by Mr. Pope. It will be of immense value to the expedition, and would most certainly be rarely appreciated by the highest students of geography could it be printed. Among the books obtained for the use of the different members is an edition of the "Chinook Jargon," the idiomatic composition of which would seem to throw the ancient Sanscrit into the shade. Its telegraphic transmission, however, is said to be not a very difficult matter, inasmuch as it is comprised mainly of an agglomeration of guttural sounding consonants, which could easily be surmounted by the newly invented repeaters. This may probably furnish another instance to the philosopher who claimed that all new inventions were destined to overcome some ancient speciality, and if our telegraphic system can make the "Chinook Jargon" intelligible, the world of letters and of astute science may well congratulate itself upon a modern scientific conquest.

Of course, for an expedition which is destined to traverse such high latitudes, and where much will be dependent upon accuracy of information to be derived only from observations taken only from the heavenly bodies, the very best optical and astronomical instruments will be needed. These have been carefully obtained, and many of them prove to be of rare merit, many satisfactory tests having been made in this city by night and day. If these instruments prove so satisfactory in this climate, subject to the fog and smoky exhalations of this great city, they will most certainly be found to possess the most admirable properties, claimed for them by their makers, upon being practically tested in those regions where the smoke of civilization disturbs not the rarified atmosphere so freely inhaled by only the white bear, the walrus, and the adventurous whaleman.

To facilitate the movements of the expeditionary force, and also to be prepared to meet the natives in all comity, an experienced interpreter has been attached to the corps. A surgeon has also been put upon the staff, whose medical abilities and advice will no doubt enable the force employed to retain that robust health and physical energy so essential to the success of the enterprise.

By the above outline, the intelligent reader can easily comprehend the vastness of the enterprise undertaken, and will easily discern that a master mind is at the head of the expedition, which grasps at once the various difficulties to be encountered, and provides thoroughly the means of surmounting them. That success to the fullest extent will crown the toils, the dangers, the hopes, the fears, and the grand anticipations of the projectors of this stupendous work, there can be no doubt; and, through the blessing of Divine Providence, brought down upon the exertions of this little band, in those far-off Arctic regions, by their own prayers, united with the holy aspirations of the dear ones at home, we all, in common with the enlightened community in which we dwell, shall eagerly listen for the first click of the instrument, announcing that space is annihilated, and that the two greatest nations of the globe are indissolubly united in fact, as they have been for years in fraternal feeling.

MILITARY TELEGRAPH LINES IN AUSTRIA.

The mode of erecting a field military telegraph by Austrian soldiers, which has recently been done in West Jutland, is as follows: Nine men are required; the first soldier measures the distance: then come four others with a little hand-cart upon which the wire is rolled on a drum, one of the four turns the drum handle, another "reels out" the wire; the sixth man behind makes a hole in the ground with an iron "bit" for the telegraph-staff to stand in; the seventh sticks the staff provisionally into the hole that has been dug for it; the eighth puts the wire through the aperture; the ninth and last soldier, coming after the rest, does the final steadyng and adjusting of this simple apparatus and the work is complete.

GENERAL OFFICERS

OF THE

NATIONAL TELEGRAPHIC UNION.

C. W. HAMMOND, PRES.,
P. O. Box 1,916, St. Louis, Mo.

W. H. YOUNG, VICE-PRES.,
Am. Tel. Office, Washington, D. C.

JAMES PARTRICK, TREAS.,
Am. Tel. Office, Philadelphia, Pa.

J. C. UPHAM, RECORDING SEC.,
P. O. Box 2,507, Boston, Mass.

KENNETH MCKENZIE, COR. SEC.,
Cure Pacific R. R., St. Louis, Mo.

BOSTON DISTRICT.

(Numbers 47 members.)

BOSTON, Sept. 26th, 1864.

SPECIAL meeting of this District called to order at 8.10 P. M., E. F. Leighton, Esq., District Director, in the Chair.

After reading of the Minutes of previous meeting, Mr. T. A. Davin, delegate to the National Convention from this District, proceeded to read his report of the proceedings of said Convention. Mr. Davin's report, together with the doings of the Convention, were heartily endorsed by the meeting. Mr. Davin also presented a series of resolutions, having in view the best interests of the Association in this District; all of which were adopted by an unanimous vote.

The following named persons were presented for membership, and duly elected: P. A. Burns, of the People's Office, Boston; W. H. Robbins, of the Independent Office, Providence, and Charles Crandall, of the American Office, Taunton.

At 9 o'clock the Chairman adjourned the meeting.

E. F. LEIGHTON, *District Director.*GERRITT SMITH, *District Secretary.*

REGULAR MEETING.

BOSTON, Oct. 5th, 1864.

Meeting called to order at half past eight. Mr. E. F. Leighton, District Director in the chair.

Minutes of the previous meeting read and approved.

Mr. G. H. Albee offered the name of Geo. W. Flagg, as applicant for membership, who was unanimously accepted.

Mr. T. A. Davin offered the following resolution:

Resolved, That the Boston District fully appreciate and return sincere thanks to the gentlemen of the Philadelphia District for the magnificent and generous manner in which they entertained the representatives of this District while attending the late Convention in that city. Unanimously adopted.

Mr. T. A. Davin moved that the meeting proceed to the election of Local Directors, and proposed Mr. J. W. Stover for the U. S. Office.

Mr. J. LaBonte proposed Mr. B. G. Winter for the American Office.

Mr. Thos. Curry, Jr., proposed Mr. P. H. Burns for the People's Office. The above named gentlemen were unanimously elected.

Mr. T. A. Davin moved that the chair appoint a committee of three to wait on Thos. Hall, Hinds & Williams, and other manufacturers of telegraphic apparatus, for the purpose of soliciting advertisements for *The Telegrapher*. Carried.

The chair named D. D. Devereux, T. A. Davin, and G. Smith, to serve as such committee.

Mr. T. A. Davin also moved that the chair appoint a committee of two, to wait on the operators of the Vermont and Boston line, and also to correspond with all operators in the vicinity of Boston, who are not now members of the Union, to use their best endeavors to urge them to become so at once. Carried.

Mr. W. C. Havens and Mr. T. A. Davin, were appointed such committee.

The term of duty of the Relief Committee for the past year having expired, the Director proposed the election of a Relief Committee to serve for the ensuing year.

Mr. J. LaBonte proposed H. S. Martin, and H. W. Wheeler.

Mr. Thos. Curry, Jr., proposed J. W. Duxbury, and the above named gentlemen were elected.

The Director then recommended that the members of this District, as a body, tender their heartfelt thanks to Messrs. T. A. Davin, J. W. Stover, and D. D. Devereux, for the faithful manner in which they have performed the duties of their several offices for the past year; which was adopted.

A large amount of other business was transacted during the evening, but which is of interest only to members of this District.

At half past nine o'clock, on motion of Mr. T. A. Davin, the meeting adjourned.

E. F. LEIGHTON, *District Director.*GERRITT SMITH, *District Secy.*

BALTIMORE DISTRICT.

(Numbers 34 Members.)

BALTIMORE, Oct. 2d, 1864.

The Meeting was called to order at 3.30, P. M., Arch. Wilson, Jun., Esq., in the Chair.

Minutes of last meeting were read and approved.

Report of Committee on By-Laws read and approved, and By-Laws adopted.

Mr. M. H. Kerner moved to have two hundred copies of the By-Laws printed. Motion carried.

Mr. Wilson, from the Committee on room, stated, that upon consideration, the Committee deemed it inexpedient at present to furnish a room for our meetings, and that he had addressed a communication to the Board of Brokers of this city, asking the privilege of using their room for one afternoon in each month. A communication was then read, from the Secretary of the Baltimore Stock Board, granting us the use of their room for our meetings.

Committees on By-Laws and room discharged.

Mr. Wilson moved that a vote of thanks be offered to the Board of Brokers. Carried.

Applications for membership were read from the following gentlemen, and they were duly elected members of this District: Messrs. C. S. Shivelor, J. S. Williams, J. J. G. Riley, R. M. Black, and W. S. Logue, of Baltimore; E. J. C. Hull, Frederick; C. C. Yeakle, Cumberland; E. W. Mason, Martinsburg.

A communication from the editor of *The Telegrapher* was then read, stating that the first number of that paper would be issued during the last week of September.

Several Bills were presented for Stationery, &c., which upon motion of Mr. Showacre were ordered to be paid.

Mr. Ways moved that each member be taxed ten cents per month, to defray local expenses. Carried.

Mr. Cumberland moved that the ten cent tax date from August 1st. Carried.

On motion of Mr. Kerner, a Committee of three was appointed by the President to draw up a resolution of thanks to the Board of Brokers. The following gentlemen were appointed: Mr. Riley, Mr. C. E. Ways, and Mr. Showacre. The Committee were allowed a recess for the purpose of drawing up the resolution of thanks. The meeting awaited the report of the Committee, which was received and read, and, on motion, was adopted, and the Secretary instructed to present it in official form.

On motion of Mr. Ways, the meeting adjourned at 5.15, P. M.

A. WILSON, JUN., *District Director.*M. H. Kerner, *District Secy.*

WASHINGTON DISTRICT.

(Numbers 28 Members.)

WASHINGTON, September 11th, 1864.

Pursuant to call, a Special Meeting of this District was held this P. M. Twelve members answered roll-call. After adoption of the minutes of the preceding meeting, the District Director, Mr. William H. Young, presented the following: (Mr. Whelpley in the Chair.)

To the Members of Washington District, National Telegraphic Union:

The National Telegraphic Union, in Convention at Philadelphia, Monday, Sept. 5th, 1864, having, by a resolution adopted, declared it to be the sense of that Convention, that no General Officer should hold a position as District Officer, and having, by unanimous vote, elected me Vice-President of the Union for the following year, I am therefore compelled, most reluctantly, to tender to you my resignation as District Director of this District.

Hoping that my successor will prove more able and competent to discharge the duties of the position,

I remain yours, &c.

WM. H. YOUNG.

Resignation accepted. The meeting then proceeded to elect his successor. Messrs. Marean and Clarke were nominated. On first ballot Mr. Marean received six votes, Mr. Clarke, seven. Mr. Marean afterwards withdrew his name as candidate, and moved that the election of Mr. Clarke be declared unanimous. Carried.

The election of Treasurer—his office being vacant—being next in order, Mr. Whelpley was declared elected on first ballot.

On motion of Mr. Young, a Committee of three, Messrs. Young, Atwater, and Marean, were appointed to revise the District By-Laws.

The District Director was empowered to take from the Treasury, necessary funds to procure printed blanks, as used in other Districts.

Mr. Young offered a resolution requiring the printing of a circular for distribution among army operators. After remarks by Mr. Atwater and others, Mr. Sherman moved its reference to the Committee appointed to revise local By-Laws, with instructions to draw up a suitable circular. Subject deferred.

Mr. Marean offered the following, viz.:

Resolved, That the thanks of this District are due, and are hereby tendered to Mr. Wm. H. Young for the able manner in which he has performed his duties as District Director for the past year.

That the conduct of our delegates, Messrs. Young and Atwater, at the recent Convention at Philadelphia, meets with our greatest satisfaction, and receives our unanimous approbation.

This resolution was most enthusiastically adopted. Mr. Young expressed his thanks for such consideration of the District in an appropriate manner.

The Director elect appointed Mr. W. H. Young and Mr. H. H. Atwater as his council.

There being no further business—adjourned.

WM. H. H. CLARKE, *District Director.*FRED. W. ROYCE, *Secy.*

WASHINGTON, October 2d, 1864.

The regular monthly meeting of this District was held this P. M. Minutes read and adopted.

Report of Committee on By-Laws read and accepted, and the Committee discharged.

The District Director was instructed to procure the vote of each member of the District upon their adoption—two-thirds majority being required to alter the present By-Laws.

Mr. J. D. Flynn was unanimously elected a member of this District.

Mr. Young offered the following, viz.:

Whereas, John M. Locke, a member of this District, having failed to pay his Union dues, after being duly notified,

Resolved, That it is the sense of this District, and we hereby recommend to the Executive Committee, that he be expelled from the National Telegraphic Union.

Mr. Elverson objected to his expulsion, and urged that his name be dropped from the rolls instead. After further discussion resolution adopted.

A Committee of two were appointed to endeavor to obtain more suitable rooms for the accommodation of the District.

Adjourned.

WM. H. H. CLARKE, *District Director.*FRED. W. ROYCE, *Secy.*

PHILADELPHIA DISTRICT.

(Numbers 40 members.)

PHILADELPHIA, October 3d, 1864.

REGULAR meeting of this District was held at St. James Hall this (Monday) afternoon. Called to order at 3.30 P. M., R. J. Black, District Director, in the Chair.

The Secretary being absent, T. G. Kennedy was appointed Secretary, pro tem. Reading of Minutes dispensed with. Mr. Black being only one of the delegates to the National Convention present, made a verbal report of the action of the Convention and the part taken therein by our delegates.

A communication from committee of National Convention, in response to invitation of Philadelphia District to join them in a supper, was read and ordered to be entered upon the Minutes. A telegram from ex-President Jas. G. Smith, in reply to same invitation, and a series of resolutions from the New York District, expressive of their appreciation of the hospitality of their Philadelphia brethren, were also read and ordered to be entered at length upon the Minutes.

On motion of Mr. H. C. Robinson, the monthly dues of the local organization were fixed at twenty cents, and a fine of twenty-five cents additional was imposed upon all absentees from the regular meetings, without a good and sufficient excuse. The transfer of Mr. M. Y. Holley from the Washington District was received, to date from August 1st, 1864. Messrs. T. J. Clinger, R. C. Fulton and B. F. Roby were proposed and unanimously elected as members of the Union. Mr. Jas. Partrick was appointed to act with the District Director as a committee on the visitation of the sick for the ensuing month. Election of officers for the ensuing year being in order, the rules were suspended, and Mr. R. J. Black was unanimously re-elected District Director; Mr. M. D. Buckerville, local Director; Mr. T. G. Kennedy, local Secretary; and Mr. Joseph S. Green, local Treasurer. On motion of Mr. James Partrick, a Committee of three was appointed to inquire into the feasibility and expediency of procuring and fitting up a "Telegraphic Club Room," to be used as a meeting and reading room for the "Telegraphic Union." District Director appointed Messrs. Jas. Partrick, H. C. Robinson and Joseph S. Green. On motion, the District Director was added to the Committee. On motion, meeting adjourned to meet on first Monday in November, at same hour and place.

R. J. BLACK, *District Director.*T. G. KENNEDY, *Secretary, pro tem.*

NEW YORK DISTRICT.

(Numbers 67 members.)

REGULAR MEETING.

NEW YORK, October 4th, 1864.

But fourteen members being present, (lacking one of a quorum), the District Director declared the meeting adjourned until the first Tuesday evening in November.

L. H. SMITH, *District Director.*D. R. DOWNER, *District Secretary.*

The following Resolutions, drawn up by the Committee appointed at the special meeting of the New York District, September 16th, 1864, were received too late for insertion in their proper place in our last issue:

Resolved, That, as a portion of this "Union," we recognize with gratitude the able, earnest, and successful manner with which the members of the Philadelphia District performed their duty in connection with the late Convention; and that it is our belief that much of the completeness, the unity and harmony of sentiment, and the very remarkable success of that session, was due to the attentions and labors of the Philadelphia District.

Resolved, That our especial thanks are due, and are hereby tendered to the members of the Philadelphia District for the many courtesies and considerate attentions extended to and bestowed upon the members of our delegation during their stay with them, and that we assure them that it is felt, appreciated, and will ever be treasured by us with the liveliest and most agreeable recollections.

Resolved, That the example set by the Philadelphia District of distinguishing the annual conventions of the Union by the interchange of high-toned social courtesies is one that can be followed with advantage to our enterprise, as marking with more than ordinary distinctness the eras of our gradual progression, and as leading to that greater familiarity among members remotely situated which is always an essential to the thorough unity of large bodies of men, and the necessity of which is recognized by no class of people more than by Telegraphers.

Resolved, That the District Secretary be directed to forward a copy of these Resolutions to the Director of the Philadelphia District.

J. G. SMITH,
J. G. KENDALL, } Committee.
WM. STEINHOFF. }

ALBANY DISTRICT,

(Numbers 20 Members.)

ALBANY, October 4th, 1864.

REGULAR MEETING.

MEETING called to order at 10 P. M. by the District Director. Eleven members present.

The minutes of the last meeting were read and approved.

The local Director announced that he had the names of two applicants for membership.

On motion it was resolved that they be elected by acclamation.

The Director read the names of the following applicants: D. B. Tomlinson of Albany, and D. L. Pike of Utica, proposed by A. L. Whipple.

The above-named persons were unanimously elected members of the Union.

A letter was received from H. A. Bogardus, offering his resignation as a member of the Union, stating for his reasons, that he had left the employ of the United States Telegraph Company, and connected himself with a commercial college for the purpose of teaching telegraphing.

It was moved that his resignation be laid on the table, and that a Committee be appointed to draft resolutions expressive of our disapprobation of his action. Carried.

Messrs. Whipple and Rice were appointed such Committee.

Mr. Whipple moved that a Committee of three be appointed to draw up a resolution of thanks to the members of the Philadelphia District for their generous treatment of the delegates to the late Convention. Carried.

Messrs. Morgan, Waterbury, and Heath were appointed such Committee.

Adjourned.

ALBANY, October 10, 1864.

AT A SPECIAL MEETING, held this (Monday) evening, the following resolutions were presented by the Committee, appointed for the purpose, and were unanimously adopted.

Resolved, That the thanks and good wishes of the Albany District of the National Telegraphic Union be and are hereby tendered to the members of the Philadelphia District for the cordial reception and generous treatment of the delegates to the late Convention.

Resolved, That a copy of these resolutions be forwarded to the Philadelphia District, and one to *The Telegrapher* for publication.

M. L. MORGAN,
H. L. WATERBURY, } Committee.
GEO. H. HEATH,

Whereas, H. A. Bogardus, a member of this District of the National Telegraphic Union left the employ of the United States Telegraph Company, and accepted the position of instructor of telegraphing in a college or school, thereby lending his assistance to "flooding the country with inefficient operators at cheap rates, and destroying one of the chief merits of the business, its reliability," therefore, be it

Resolved, That we consider the action of H. A. Bogardus as detrimental to the profession; as uncalled for at the present time, when every efficient operator is needed for the public business; and unjust to his fellow operators, who, when using every endeavor to elevate the craft by establishing a "Union" to raise the moral and social position of themselves, found him one of the first in advocating its cause, now basely deserting it, and using his talents and abilities in pulling down the very structure he has assisted to build.

Resolved, That we, the members of the Albany District of the National Telegraphic Union, cannot but view the action of H. A. Bogardus with indignation; and while we regret exceedingly that this District should have been so unfortunate as to possess a member with so little common feeling to his fellow operators, we trust this action on our part may be the means of preventing similar conduct in others.

A. L. WHIPPLE, } Committee.
S. C. RICE,

The Bogardus subject being called up, Mr. Waterbury moved that he (Bogardus) be expelled from the Union.

The yeas and nays being called, sixteen voted in the affirmative, four being absent. The expulsion was declared unanimous.

Adjourned.

S. C. RICE, *Dist. Secy.*

WASHINGTON, September 7th, 1864.

W. H. YOUNG, *Delegate, St. James Hotel, Walnut Street:*

Present this as the toast of the Washington operators:

Now fill your cups, and let the toast
Extend along your living line;
The hands being ready for the strike,
Quick! all your instruments combine.

Here's to the Union we have formed;
The Constitution—for us all—
Of mutual rights protective care,
With sense of duty to the call.

To the Editor of the Telegrapher:

Why is it that we do not have our regular monthly meetings? I take the trouble to walk all the way to town to attend the meetings, because I take an interest in the "Union" and our District, but I find no one else does, for after sitting for an hour gazing at the solemn visage of our dignified D. D., he hits the table a thwack with his little mallet, and says: "I declare this meeting adjourned until next meeting-night."

Had this occurred but once I wouldn't care, but leather costs too much now-a-days for me to walk into town just to look at our grave D. D. for an hour, for nothing.

I wanted to present to the District the sum of \$100, but I couldn't just for the want of one man. I will give \$25 to any one who will tell me where that one man was (!) last night. I suspect he was at church! What do you think?

Spiritedly yours,

OLD SULPHURIC.

THE Central Pacific Railroad Company states in its annual report that it has thirty-one miles of telegraph in operation.

The Telegrapher,

Published Monthly, by THE NATIONAL TELEGRAPHIC UNION,

L. H. SMITH, Editor.

P. O. Box 3,393, New York City.

MONDAY, OCT. 31, 1864.

NOTICE TO CORRESPONDENTS.

All communications to, or articles for insertion in, *The Telegrapher*, must be addressed to the Editor.

No notice will be taken of anonymous communications; the name and address of the writer must always accompany each article or communication.

Correspondents sending articles for insertion must write on but one page of each half sheet of paper

HAS TELEGRAPHING DEGENERATED.

A squib, which we print in another column of this paper, prompts us to ask the question which heads this article. The item to which we call attention contains a stinging truth. "The bogus messages were so badly written that it was impossible to distinguish them from the genuine." Think of this, ye Telegraphers! Have not many of you nearly cursed the hand that gave you the genuine which is no better than the counterfeit?

The facilities granted the public by the Telegraph companies were never better nor greater; and in this respect, Telegraphing has taken long strides ahead during the last three years. The wires are fast becoming to be used as freely as the mails. In their generous use of the Telegraph, are not the public entitled to better work?

It is not an uncommon occurrence for a patron of the Telegraph to bring a manuscript telegram to the office to be translated. That these instances do not occur oftener, is owing to the great capability of the public to decipher hieroglyphics. Many of our readers remember that not many years since the daily papers were forced to demand that some sort of punctuation be put into their special reports. Printers are supposed to be able to decipher anything, and yet were stumped by a telegram!

Why these defects? and can they be remedied? When Telegraphing was in its swaddling-clothes, men of education went to the "key." Then Telegraphing was supposed to be worthy a master-mind. It is different now. An operator is only expected to be capable of following copy, regardless of circumstances. If "sick" sounds "dead," make it so. We are not judges, but mechanics earning so much per month. Common sense is at a discount. To read and write the English language correctly did very well in old foggy times, but is mythical now. Speed is superior to accuracy; a slap-dab style overshadows plain English.

Has the material of which operators have been made for some years, back, and more particularly since the war commenced, been what it ought to be, and worthy the profession? Would a third class merchant accept of such for a clerk? We aver not. Then why should the indulgent public be swindled by such persons being put in the very important position of telegraph operators? Would the least among you hire such an one to write your letters? A telegram is but a letter lightning sped.

These defects can be remedied by refusing to teach the art to any one who is not qualified to take the front rank in time. It is not expected that every operator shall be a Henry or a House, but it is essential and expected that they possess common gumption. Telegraph companies owe it to themselves, to their patrons, and to the elder members of the profession, to join with the general officers of the NATIONAL TELEGRAPHIC UNION in carrying out the resolutions adopted at the recent Convention, to properly teach capable young men the profession. Henceforth operating and stupidity must not be synonymous terms.

JAMES DAKERS, Esq., Secretary of the Montreal Telegraph Company, returned on the 10th inst., per steamer *Jura*, from a visit to Scotland.

THE TELEGRAPHER.—The first number of a monthly paper, called *The Telegrapher*, has appeared. As its name imports, the new paper is devoted to matters interesting to telegraphers throughout the world, and will be at once a record of events connected with the wires, and a medium of mutual aid to operators. The specimen before us is well printed and well got up, and is an earnest of success in the future.—*N. Y. Tribune.*

The reception of *The Telegrapher* by all has been most flattering; indeed, we have yet to hear an opposing voice. Persons hitherto strangers to us, take us warmly by the hand, and unite in saying: "*The Telegrapher* is what we want, and have looked, hoped, and prayed for. It supplied a great need, and is the only one thing lacking to make telegraphing, in this country, complete. Send us your paper, and we will give you anything you ask."

We select the above complimentary notice from the many we have received, simply to use the last sentence as a text for this article.

The telegraph has been in operation in this country for some twenty years; has grown to immense proportion, and has never had an organ. It seems singular that in this progressive age and country, telegraphing should have no organ, and telegraphers no mouthpiece. The great desire to make money has advanced the former, and for want of such a journal to guide and counsel, the latter have degenerated professionally and morally.

Hand in hand with our duty to the "Union," it is the purpose of this journal to improve and extend the former, and elevate the latter.

Many of our readers may not know that all the labor upon this paper, other than the mechanical part, is a free-will offering to the "Union" and the profession. We mention this fact to disabuse the mind of any one who fancies some one is endeavoring to make money out of the fraternity. Such is not the case at present. If the support of this paper be such as to enable us to reduce our rates, by an increased circulation and demand for advertising space, then some arrangement may be made whereby some one may obtain a living from the patronage of this paper, and leave the "key" to other hands.

Some few—grumblers still live—object to our subscription price, but the majority say: "If it were twice as much we would be willing to pay it for the sake of establishing a Telegraphic journal."

To the grumblers, and those of doubtful faith, we have but a word to say: At present we but just pay expenses. It will be observed *The Telegrapher* is printed in a superior manner, and intended for binding and preservation. If the *esprit du corps* of the fraternity prove too weak to sustain the first-class appearance of *The Telegrapher* we shall be forced, against our desire, to give them a *cheap* paper.

Our subscribers will work for their own interests by pouring in subscriptions, and we promise them that, so soon as practicable, we shall reduce our rates of subscription.

The attention of our readers is called to the Prospectus of *The Telegrapher* published in another column.

We return our hearty thanks to our friends and contributors who have in a very generous manner aided us in obtaining material for this number, and we feel assured their noble generosity will not allow us to want for interesting items.

In giving to the columns of *The Telegrapher*, you pour your contributions into a common fund, and enrich no one but yourselves. Therefore, come one, come all, say we.

WHY IS IT?

An old adage says: "Children and fools ask questions which a wise man cannot answer." We must plead guilty as to the wise man, and call our correspondent, "Old Sulphuric," a fool. Why it is that out of sixty-seven members, fifteen of them cannot be brought together one night each month for two hours, is beyond our comprehension.

The New York District is the largest, in point of numbers, of any in the Union, yet we venture to say there is less life and spirit among its members. We do not recollect but three large and spirited meetings since its organization, two of which were general elections.

Of the sixty-seven members, we presume to say not one fourth of them are on night duty, leaving fifty-one to be accounted for. Where

are they? Why is it they will not devote one evening a month to their own and others' interests? These are questions we will not attempt to answer. Every time a member absents himself from a meeting without a sufficient excuse, he brands himself with shame, and does an injury to his fellow-members.

Just think of fifteen members legislating for sixty-seven! A majority of these fifteen are generally the youngest and most inexperienced. Those who stay away grumble at the laws passed and fines imposed. There are members who have not attended a meeting since the organization of the District, some of whom refuse to pay their non-attendance fines, and have no valid excuse for their absence.

What excuse can those who objected to the former meeting-night as always stormy, and those married men who claimed it as their market time, advance now? The time of meeting was changed to meet these objections, yet the same persons stay away worse than ever, and when called upon for their non-attendance fine, all but curse the District Treasurer for doing his sworn duty.

We advise all these delinquent members to read the proceedings published in this paper, and reflect upon their selfish course; and we ask the spirited western members to observe the lukewarmness of their eastern brethren, who will no doubt make a spasmodic effort in time to visit Chicago next year.

The subject grows upon us, so we leave it ere it overwhelms us.

EXPULSIONS.

The attention of the members of the "Union" is called to the "Bogardus resolutions," adopted by the Albany District. They have the right ring, and will prove an honor to that District. We are glad to at last see swift and sure justice meted out to these delinquent members, who are but rotten timber in the Union structure, and it is the duty of every District to ferret out and thrust forth these drags upon their progress.

We must however warn members against too hasty action. It was wisely provided by the framers of the Constitution that after a member is once admitted to the Union, he cannot be expelled by the mere whim of a few members of a District, but final judgment of his case must be passed upon by the Executive Committee thereof.

The vote of expulsion of a member by a District places him in disgrace, and disqualifies him from receiving or enjoying the benefits of the Union, but he nevertheless remains a member until the Executive Committee sanctions the action of the District.

An expelled member has the right of appeal to the Executive Committee from the decision of the District; said appeal must pass through the hands of the District Director, whose duty it is to forward it to the Chairman of the Executive Committee at once, and fairly promulgate their decree.

Several Districts at their October meetings have, we notice, appointed Committees for visiting the sick. If these Committees are for the purpose of carrying out the provisions of the first section of Article 7 of the Constitution, they are contrary to the same, and are entirely unnecessary, as clause 2 of this section of the Article provides that the District and Local Directors and the Director's council shall constitute such Committee.

For the purpose of easy designation, we shall, in these columns, style the Convention which met in New York, November 2d, 1863, to adopt a Constitution, the Constitutional Convention, and the one recently held in Philadelphia, the First Regular Convention.

Several members of the New York District have received their Badges, which are very neat and elicit universal praise. Every member of the Union should hasten to obtain one. Applications should be made through the District Directors, who must apply for them to the Treasurer of the Union.

We have been assured that the vote upon the Badge question was in this wise: Mr. Black called for a reconsideration of the vote placing the letters "O. K." on the globe, which being granted, he moved that the word "America" be substituted, and upon suggestion of others he substituted "Patria," but before it was put to vote Mr. Flanagan offered the following as a substitute to Mr. Black's motion: That the letters "N. T." be placed in the space at the top of the shield and the word "Union" on the globe, which was adopted.

The circulation of the first number of *The Telegrapher* far exceeds our most sanguine anticipations. The Districts generally subscribed for

a number exceeding twice the number of their members. New York and Boston were the two extremes; the former subscribing for over two hundred and the latter for fifteen, although the latter is one of the largest Districts sending three delegates to the late Convention. Nashville ordered one hundred, but has not yet forwarded its remittance, and Maine has not been heard from in any way whatever, although frequently communicated with. Philadelphia, Baltimore, Washington and St. Louis ordered the second time, and the latter District bears the honor of sending the first quarterly subscriptions. Baltimore made the first and Detroit the last remittance.

Remittances are acknowledged from all the Districts, Nashville and Maine excepted. There is something rotten in the last named District which needs cutting out. The District Director seems to be inefficient and a do-nothing. Will the members attend to his case? or are they like him? The delegate from that District made fair promises, but we do not discover they have ripened into deeds. Where is the hitch?

The promptness and energy displayed by the General Officers in their official duties is worthy of, and shall receive from us, generous praise. We are assured the President does not allow a letter to remain unanswered twenty-four hours after its receipt by him; and we know he holds his work well in hand, and keeps the District Directors well up to their duties.

The President is ably seconded by every member of the Executive Committee.

In this connection we will state, for the information of the members, that we have been notified of the probable formation of four or five new Districts.

Speed the good work, and keep the ball rolling.

Several interesting articles have been laid over till our next issue for want of space.

THE PACIFIC TELEGRAPH.

The first inception of this great enterprise dates from the year 1859, when the measure was first brought to the attention of Congress. A bill in aid of the project was passed after some opposition, and proposals for the construction of the line were advertised for by Secretary Cobb. Mr. Hiram Sibley, President of the Western Union Telegraph Company, who was really the originator of the whole enterprise, put the question to the Directors of the Company, whether they would authorize proposals to be sent in; and so formidable did the undertaking appear, that it was favorably carried only by a single vote.

After long and tedious delays on the part of Secretary Cobb, the contract for building the line was awarded on the 20th September, 1860, to Mr. Sibley, President and representative of the Western Union Telegraph Company. This Company at once assumed the contract, and furnished all the money expended on the line east of Salt Lake.

They at once despatched Mr. J. H. Wade, of Cleveland, one of the Officers of the Company, to California, to confer with the parties on that side, and persons who had traversed the various routes, and determine where and how to build the line, and also to make arrangements with the Telegraph Companies in the Pacific States, or such of them as might agree, either for a business connection at the point where their lines then terminated, or to induce them to extend their wires eastward.

After various discussions the route was at last settled upon. The California Company agreed to assume the construction of the line to Salt Lake city immediately, and, if possible, to have it completed to that point as soon as the line from the eastward reached there.

It was not an easy matter to determine the best route, but it was finally determined to run via Fort Kearney, Fort Laramie, and Fort Bridger; crossing the Rocky Mountains at the South Pass, and thence to Salt Lake City, and from this point via Fort Crittenden to Fort Churchill, thence crossing the Sierra Nevada mountains to Placerville and San Francisco.

Mr. Edward Creighton was appointed Superintendent of construction on the eastern part of the line. Mr. Creighton had already surveyed the proposed route and convinced himself that a line could be maintained over it.

The Directors met at Rochester, and organized the Company April 17th, 1862, by electing J. H. Wade, President, Hiram Sibley, Vice President, and E. Creighton, Superintendent; after which nearly all the wire, insulators, and other material had to be made before the construction of the line could be proceeded with.

The wire used on the line is No. 9, iron wire, galvanized, and the insulators are of glass, protected with a wooden shield, of the pattern known as the "Wade" insulator. The materials and tools were taken to Omaha, Kansas, at which point everything necessary for the expedition was gathered in readiness to start westward.

Having in mind the usual manner of constructing telegraph lines, the reader will be able to judge of the labor required to set up two thousand miles of telegraph through a wilderness inhabited only by Indians and wild beasts, and a part of which was a desert plain.

Of the force employed on the Pacific side we have no knowledge—but, for the line from Omaha to Salt Lake city, Mr. Creighton had four hundred men, fitted out for a hard season's campaign, including rifles and navy revolvers for each man, with the necessary provisions, including one hundred head of cattle for beef. These were driven with the train, and killed as needed.

For the transportation of the material and provisions for this army of workmen, five hundred head of oxen and mules, and over one hundred wagons were purchased by the Company, and these not proving sufficient, other transportation was hired, making the total number of beasts of burden seven hundred oxen and one hundred

pair of mules. When all was ready, the party started from Omaha, and set their first pole on the fourth of July, 1862. The line was completed to Salt Lake on the 18th of October, 1862; and the California party reached the same point six days later, on the 24th. They advanced at the rate of about ten miles per day. The whole line is upon poles, it being thought best to cross the rivers in this manner rather than by means of submarine cables. The wire weighs three hundred and fifty pounds to the mile, and the total weight of wire used between Omaha and San Francisco amounts to seven hundred thousand pounds. The posts are of good size, eighty to the mile, more than half red cedar, the balance being mostly pine.

The country is desolate of timber most of the way. The longest distance poles were hauled in one stretch was two hundred and forty miles. On the high mountains where the snow accumulates to a great depth during the winter, the posts are extra large, and sufficiently high to keep the wires above the deepest snow. They are also placed close enough together to prevent the wire being broken by an accumulation of snow and sleet.

The line is worked by Morse's instruments, usually direct from Chicago to Salt Lake, by means of intermediate "repeaters" at Omaha and Fort Laramie. At Salt Lake the messages are re-written and sent direct to San Francisco. The stations on the line average about fifty miles apart, and the whole length of the line is inspected twice a week by persons employed for the purpose.

The cost of the line averaged about \$250 per mile.

The section on the California side was built by Mr. Street, of California, at about the same rate of progress, ten miles per day.

No difficulty has been experienced from Indian depredations since the construction of the line, and it has continued to work almost uninterruptedly since its completion. Even during the late Indian difficulties, which compelled the suspension of the overland mail route, the telegraph line was not in any manner molested by the savages. This is supposed to be owing, in a great measure, to the influence of superstitious fear among them in regard to the wire, leading them to regard it as something of a supernatural character.

The total amount of business done by this line is immense, and has more than fulfilled the most sanguine expectations of its projectors.

ELECTRON.

WORLD TELEGRAPHS—THE CHINA LINK.

Various lines have been in contemplation and are in course of construction for a complete telegraph around the world. One is to reach from San Francisco across Behring's Straits, thence to the Amoor, and by the Russian line to St. Petersburg and Pekin. Another leaps from Cape Race to Valencia, on the coast of Ireland; while a third passes from Labrador, by way of Greenland, Iceland, and the Faroe Islands, to the coast of Scotland. Of these lines, one or more is likely to be soon completed; and meanwhile the English papers announce that a line from England across the European continent, through Turkey and along the Persian Gulf to Bombay, is nearly ready to be opened. This and the last above-mentioned Oceanic line, or the line by Behring's Straits to San Francisco, will establish complete telegraphic communication around the world, with the exception of a break from Calcutta across the Empire of China to Pekin, which is the point for connection with the Russian line to St. Petersburg, and the American line to San Francisco.

It is this break, or a large part of it, which "The East India Telegraph Company," a corporation chartered this year by the Legislature of New York, proposes to fill up. The line from Calcutta to Canton is already undertaken by an English Company, with due authority from the British Government. From Canton to Pekin is the route which the New York company will take, and which, once traversed by the wires, will complete the girdling of the globe.

This company has organized under its New York charter in such a way as to be well entitled to public confidence; its capitalists and managers being merchants honorably known in the Eastern trade, many of them long residents of China, and familiar with the commercial needs of that Empire. Its enterprise is based upon two considerations: the immense importance of completing the world-line, and the local advantages which the telegraph from Canton to Pekin will possess, independently of its relation to other lines.

The wires of this company are first to be put up from Canton to Macao and Hong-Kong, a distance of 140 miles—Canton having a population of one million, Hong-Kong of two hundred thousand, and the trade of both cities world-famous. Lying 245 miles north is Amoy, with 250,000 inhabitants, and 120 miles further in the same direction is Foochow, a city with a population of 1,250,000, and within 70 miles of the black tea districts, with large commerce, and with numerous manufactures of great value. Beyond it 245 miles is Ningpo, with 300,000 people, and thriving manufactures of silks. Eighty miles north is Shanghai, a city of not less than 2,000,000 inhabitants, and possessing a larger inland or native trade than any other in China. Yet between these great marts there is no telegraphic communication whatever, nor is there a line in any part of the whole Chinese Empire. The company proposes, therefore, to connect these great commercial cities, and, having done that, to carry on its line to Nankin, with its 400,000 inhabitants, and thence to Pekin, which has a population of 2,000,000, and is the capital of an empire spread over an area of 5,000,000 square miles, and containing more than 420,000,000 souls, who pay to the Government an annual revenue of \$120,000,000. It may well be understood that for governmental purposes alone, a line of telegraph thus extending between the chief cities of China will prove of incalculable value, alike in its use and in its profits to those who build it and receive its income. The enterprise is a great one, but its reward will be great. Its progress seems to be well assured, and New York may presently expect to claim the honor of first giving to the oldest of existing empires the beneficent invention which the newest of nations created, and at the same time of taking the final step for the completion of the one great line which is to put all the countries of the earth in instant communication.—*N. Y. Tribune.*

An individual was recently arrested in a neighboring city while practicing an ingenious swindle by means of some telegraphic message forms which he had in some manner obtained possession of. He would fill one of them with a bogus message addressed to some person in the city, and deliver it at his residence, collecting a small sum of money upon it. An exchange paper sarcastically remarks that "the bogus messages were so badly written that it was impossible to distinguish them from the genuine." We must admit that there is still some room for improvement in the matter of penmanship among many of our operators.

THE TELEGRAPHER.

BY A FRIEND.

Fair barque, gently launched on the billows of Time,
With sails wide unfurled, and thy bearing sublime,
May thy mast-head be crowned with colors so true
Which true patriots love—our Red, White and Blue.

Thy deck is now manned by a brave, noble crew,
Sufficient to guide thee thy journey safe through.

Speed on! and for thee be the skies ever clear,
No wild shrieking tempest encompass thee near:
Aye, "Onward and Upward" thy motto e'er be,
While we on the mainland are watching for thee.

Yes, watching and praying that thou may'st succeed,
And win others, too, thine example to heed:
And when thy short voyage on earth's seas is o'er,
O! moor thy crew safely near Heaven's bright shore.

THE FIRE ALARM AND POLICE TELEGRAPH.

This telegraph having been finished by the contractors, John E. Kennard & Co., was handed over to the city authorities this afternoon. We therefore append a brief account of the manner in which the apparatus is worked, and also a history of the invention, which we extract from a printed circular:

The city is divided into 58 signal stations. From the central office, on Tenth street, between D and E, wires are extended to every part of the city, connecting with the signal boxes and alarm bells, and returning again to the central office. These wires form the "signal circuits" and "alarm circuits," and are carried on poles or over the houses, on the most lofty of which they are supported by insulators held in brackets.

The circuits differ from other telegraphs in being completely metallic, connection being made with the ground only during breaks or other interruptions; any such break instantly reporting itself to the operator on duty by ringing a bell at the central office. To secure the constant attendance and vigilance of the operator, it is made a part of his duty, every twenty minutes or oftener as is deemed necessary, to test the batteries, adjust the apparatus, etc., the performance of which is recorded upon a disc of paper by a pencil moved by an electro-magnet, enclosed in a case beyond his reach, and, therefore, a perfectly true tell-tale.

Each signal-box is furnished with a telegraph key for police purposes, and, by a simple set of signals, any policeman can communicate with the central office from any part of the city. We may suppose that the fire is signaled from box "25." The call-bell at the central office calls the attention of the operator to the receiving instruments, and upon seeing the records, he turns immediately to the repeater, places one indicator over the figure 2 and the other over the figure 5, and releases the mechanism of the repeater, which starts at once, and by telegraphic communication causes the alarm-bells in the bell towers, the "gongs" in the engine-houses, and the boxes throughout the city to strike the number of the box, thus: 2—5, making a short pause between the 2 and 5: and continuing to do so as long as the regulations of the Fire Department may require. This is accomplished by machinery at the bell towers, liberated at each blow by a telegraphic impulse, communicated at suitable intervals by the arrangement of the repeater. When it is advisable to alarm a part of the Department only, the operator, by means of "switches," disconnects one or more of the alarm-circuits from the repeater, and the bells upon those circuits are silent.

HISTORY OF THE FIRE AND POLICE TELEGRAPH.

At an early period in the history of the electro-magnetic telegraph in this country, Dr. Channing, of Boston, described its application to fire alarms, and published in June, 1845, a general statement of the principles which now underlie the system of the American fire-alarm and police-telegraph. This is believed to be the first publication in which the application of the telegraph to the purpose of giving public alarm in case of fire was announced.

The telegraphic alarm system, subsequent to 1845, became the subject of occasional publications, and its adoption was at length recommended by Hon. Josiah Quincy, Jr., mayor of the city of Boston, in his official address of January, 1848. At this time Dr. Moses G. Farmer, telegraphic engineer of Boston, directed his attention to the subject, and it is to the scientific skill and inventive genius of Dr. Channing and Mr. Farmer that we are indebted for the Fire Telegraph. It was the mechanism of the human system which suggested to Dr. Channing the "signal" and "alarm" circuits. The analogy with the functions of the motor and sensitive nerves of the animal organization is complete. The central office is the brain, the wires the nervous system.

In 1851, Dr. Channing submitted to the city government of Boston a detailed plan for a fire-alarm telegraph, which was adopted, and on the 28th day of April, 1852, the system was put into practical operation.

In 1852, the fire-bells of New York, seven in number, were connected by a telegraph wire, so that an alarm which had become known to the watchman in one, might be signalized to all the others. Subsequently, the American fire-alarm and police system was adopted, and a contract for a still further extension of the fire telegraph is now in the course of completion. The next city to adopt the fire-alarm and police telegraph was Philadelphia, where it went into operation on the 19th of April, 1856. Next came in order St. Louis, Baltimore, New Orleans, Charleston, in the United States, and Montreal in Canada—[Washington Republican].

THE NEW TELEGRAPHIC FIRE ALARM.

Appointments of Superintendent and Operators.—The mayor last evening sent to the board of aldermen, for confirmation, the following appointments for positions on the fire-alarm and police telegraph, which is to go into operation shortly:

Superintendent—A. B. Talcott.

Operators—Richard Blackie, Thomas Morrison.

Battery-man—John H. Faulkner.

Mr. Talcott has been among the pioneers in the telegraph affairs of the country for the past fifteen years, and is well known to the telegraphing public, not only of this city, but of the whole country. Among those of the profession his name is a "household word." We congratulate our citizens upon the appointment, feeling assured that in his hands the value of the fire-alarm and police telegraph system will be fully demonstrated.

Of the other gentlemen we can only say that they are represented to us as very worthy and estimable citizens, and we have no doubt they will, under the direction of so able a superintendent, prove themselves well worthy of their position.—[*Washington Republican*, 11th inst.]

TELEGRAPHS IN THE FEDERAL ARMY.

The following interesting remarks we take from the Report of the Secretary of War:

"The service of the field telegraph trains, in the hands of the corps, and making part of its equipment, has been conducted with a fair and, in some instances, a marked success in the different military departments. The liberality of the War Department has allowed a development of this branch of the duty greater than was recommended at the date of my last report, and with results which have justified the action. It remains, in my view, only to follow the path of development indicated by the experience of the past year to secure for our armies a service of field telegraphs, with portable lines, so superior as to render our advance in improvements of this character as notable as those which have marked the progress of our armies in other branches of military appliances."

"In my last annual report there was brought to the attention of the department the improvement in telegraphic apparatus which the ingenuity of American artisans, stimulated by the field opened to them by this war, and the call for improved equipments for the trains for the signal corps of the army, had inaugurated. The practical experience of the past year, indicating the wants of the service, and the ingenuity constantly exercised to overcome these wants and to perfect the material have led to developments in the art which are now attracting the attention of electricians, and which, if they fulfill the promise of their seeming, will go far to revolutionize the appliances for the transmission of signals by electricity. It is already a subject of consideration whether the appliances and the modes for generating a magnetic current, as first used for telegraphy in this country, in the experimental instruments made for the signal corps to dispense with the clumsy and untransportable voltaic battery, are not the appliances and the mode which will be necessary to transmit signals through submarine cables of uncommon lengths, as that proposed to cross the Atlantic. This is of course, theoretical only.

"The use of the instruments in the army has led incidentally to their examination for the naval force of the United States. Their use for civil purposes attracts attention. The ingenuity of the inventor, Mr. G. W. Beardslee, of New York, turned to the subject of increasing the powers of the instruments to enable them to work at greater distances, and to apply the magneto-electric current as generated by the field machinery, under circumstances when, with the first devised instruments it was difficult or impossible, has produced with a construction novel in this country and in Europe, a signal-sounder, by which the signals transmitted are addressed to the ear; messages transmitted by this instrument may be read as with instruments of common usage.

"Experiments have been ordered with this apparatus. If, as is the opinion of the inventor, it can be used at any great distance, and with compact and perfectly transportable apparatus of the magnetic instruments of field trains, it promises a development of field telegraphy before impossible, and will favorably influence the telegraphic enterprises of the country. Should the experiment ordered warrant the course, the signal trains of the army will be equipped with both the dial instruments already in use and the instruments now mentioned. There are opportunities for the employment of both.

"During the year there have been in the service of the corps thirty field trains, distributed as follows:

In the Army of the Potomac	5
In the Department of the Cumberland	5
In the Department of the Gulf	3
In the Department of North Carolina and Virginia	3
In the Department of the South	2
In the Department of the Tennessee	6
In the Department of Ohio	2
At the Signal Camp of Instruction, Georgetown, D. C.	3
At the U. S. Military Academy, West Point, N. Y.	1
 Total.	30

"Seventeen have been distributed since May 1, 1864. Of these trains, some have been equipped with five and others with ten miles of insulated wire. There are carried in the trains lances for setting up the wire, when that is necessary; reels, portable by hand, carrying wire made purposely flexible for this particular use, and various minor appliances which experience has proven useful. A military organization is directed for each train.

"In duty of this kind, the style of construction of the trains, the equipment they are to carry, and the military organizations to be provided for their use, to enable them to be most rapidly and anywhere brought into action, are the subjects for study. The particular instrument to be equipped is of secondary consideration. The soldiers drilled to the duty of construction, acquire in a short time a remarkable skill in the rapid extension of these lines. As was anticipated, they have proved valuable auxiliaries to the services of the corps, and have sometimes rendered them available when they would, without, have been impossible. The greatest reported distance at which the instruments have worked is twenty miles. The average distances at which they are used are from five to eight miles. The average speed of the most rapid construction is reported to be at the rate of a slow walk.

"At the first battle of Fredericksburg, field trains were first in the history of the war used on the battlefield under the fire of the enemy's batteries. The movements to be made on the day of that battle were of the first magnitude. The movements of the retreat were perilous to the whole army. The trains in use contributed something to the success of those movements."

NEW YORK, September 28th, 1864.

To the Editor of the Telegrapher:

Will some Telegrapher inform an inquisitive operator what is the largest number of messages transmitted by the Morse system over a single wire in a day? Also, the largest number of words transmitted in a minute by the same system? Also the longest "circuit" now working on this continent?

AJAX.

A HANDSOME COMPLIMENT.—Mr. L. G. Tillotson, the Superintendent of the Erie Railway Telegraph Line, was surprised on Tuesday evening, 27th ult., at his residence in Brooklyn, by a deputation of the operators of the line, who presented him with a magnificent silver service, in the name of all the operators. Mr. Gardiner made the presentation speech. The affair altogether constituted a very happy reunion.

TO THE COMMITTEE ON THE MOTTO.

Mr. Buckwell, of Philadelphia, suggests the following as a motto for the Union: *Equitias, Benevolentia et Concordia: Equity, Benevolence and Concord.*

By a recent English paper we learn the Malta and Alexandria Telegraph has been satisfactorily repaired, and the line is again ready for the transmission of messages to Egypt, India, China and Australia.

THE Boston "Transcript" of a late date has the following: "Eight hundred females are to be employed on the telegraph lines in India."

THE OVERLAND TELEGRAPH.

In accordance with the authorization by the act of Congress, the Navy Department yesterday, 10th inst., telegraphed to the proper authorities at San Francisco to arm and equip a vessel at that port, for the use of Engineer Bulkley and party, who are soon to proceed on the expedition north, to commence operations for the completion of the great overland telegraph line over the Columbia river, in Washington Territory, to the Amoor river, Russia. The expedition will probably commence active operations in the northern latitudes by the first of March. The officers of the United States Coast Survey feel great interest in the necessary preliminary surveys of the expedition, and are affording to Engineer Bulkley and his assistants all facilities in their power.—*Washington Chronicle*.

THE MISSOURI AND WESTERN TELEGRAPH CO.

At a meeting of the stockholders of the Missouri and Western Telegraph Company, held in St. Louis on 13th instant, the following gentlemen were elected directors for the ensuing year: J. H. Wade, Cleveland; Charles Davenport, Cincinnati; Charles M. Stebbins, New York; Geo. T. Williams, Edwen C. Bush and Charles J. Osborne of St. Louis. At a subsequent meeting of the directors, the following gentlemen were elected officers of the Company: Chas. Davenport, of Cincinnati, President; O. H. Palmer, of Rochester, N. Y., Secretary and Treasurer, and Geo. T. Williams, of St. Louis, Superintendent.

THE SIBERIAN TELEGRAPH.

We learn from an officer, who occupies a very high and responsible position under the Russian Government, that the telegraph between Omsk and Irkoutsk is completed. The stations have been fixed, and the line is now in operation. On the 21st December, 1863, two dispatches were sent from Irkoutsk to the director of the telegraph, at the capital. They were started from the former station at meridian, and received at St. Petersburg at 8 o'clock and thirty minutes the same evening—a distance of 5,750 versts or 3,285 marine miles. As the line was not then in complete working order, thefeat may be regarded as worthy of special note.

The labor on the Irkoutsk and Omsk portion of the line was commenced early in 1863, and in September of the same year messages were sent from one or more stations to others. In November the line was in working order to Crasnoiarsk, and by the fifth of December to Ankan.

During the period of building the line in Siberia, peculiar difficulties were encountered, owing to the depth, width and rapidity of the streams. In some places the wires were stretched along very high posts, sometimes submerged and again run under the surface of the ground.

Along and across other rivers the wires are stretched on poles. The materials used in the construction of the work are of Russian manufacture. The electric batteries and apparatus pertaining thereto were made in St. Petersburg, and porcelain insulators in Dern. Only a comparative small portion of the wire and water-cables were imported.

The completion of this grand chain of telegraphic communication between Westernmost Europe and the extreme northeastern point of the Asiatic Continent, will be hailed with an enthusiasm only equalled by that of the Atlantic Cable.—*Alta California*.

THE OVERLAND TELEGRAPH LINE TO RUSSIA.

The Western Union Telegraph Company, who, in conjunction with the Russian Government, have this great enterprise in hand, are actively engaged in fitting out an expedition under the immediate supervision of Capt. C. S. Bulkley, U. S. A., for Oregon, the coast of Russian America, and the country beyond Behring's Strait, to survey the route of the telegraph line, and make other needful arrangements to put the whole extent of the line under contract the ensuing year; and we understand the projectors of the enterprise are sanguine that the line will be in successful operation between New York, San Francisco, St. Petersburg and London by the middle of 1866.

Mr. Hiram Sibley, President of the Western Union and of the Russian Companies, sails in company with Mr. Collins, the enterprising projector of the Russian-American telegraph line, in the Scotia to day, for Liverpool and St. Petersburg, with a view to complete the arrangements already initiated with the Russian Government for expediting the early completion of the line, and we wish them the utmost success.—*Tribune*, Sept. 2nd.

We learn that Mr. Ransom Phelps has been appointed Superintendent of the Hudson River R. R. Telegraph Line, and will be stationed at Poughkeepsie.

1,145 BROADWAY, NEW YORK, Oct. 15th, 1864.

My Dear Mr. Editor:

It is to be presumed you admire the gentler sex, and I am therefore prompted to ask you a question, feeling sure your gallantry will force you to answer me.

Can a young lady operator join the "Union" without marrying one of its members? You know that we—that is, your sister operators—are rapidly growing in numbers, and I am so simple I cannot see why we should be excluded from the benefits of your association.

Please send your answer through box 999, General Post Office.

Sincerely your friend,

SUSANNAH.

We have not time to answer our fair correspondent in the manner prescribed, but will here state that we know of no reason why she and her sisters cannot become members, providing they meet the qualifications of Clause 1, Sec. 2, Art. 6, of the Constitution, and Clause 1, Sec. 1, Article 7, of the By-Laws. The Union will not force them to marry against their wishes. The best way to test the matter will be to make application in due form to the Local Director of this District, (Mr. John C. Christie,) and have your application put to vote. No gentleman will dare refuse your admittance if you meet the requirements. The Union is established for Telegraphers, not persons—*Ed.*

We take pleasure in calling the attention of our readers, who are interested in any scientific pursuits besides telegraphing, to the fact that they can secure the perusal of a first class weekly journal by subscribing for the American Artisan.

The Artisan contains descriptions of all the latest inventions and improvements in machinery, record of the latest patents, and scientific news in abundance.

Office at 212 Broadway, New York.

QUOTATIONS OF TELEGRAPH STOCK.

CORRECTED BY JOHN HORNER, CASHIER, AMERICAN TELEGRAPH OFFICE, NEW YORK.

Western Union, \$100 shares.....	103 @ 105
American " "	148 @ 145
Russian Extension " "	35 @ 37
United States " "	95
Ill. & Miss. \$50 shares.....	par.
East India \$100 shares.....	par.

DEATH.

In Springfield, Ill., on the 1st inst., CHARLES F. MCINTYRE, formerly Manager of the Springfield office, aged 22 years.

THE TELEGRAPHER,

Devoted principally to the Interests of the National Telegraphic Union, and to Telegraphers and Telegraphing in general;

And will contain, besides all matters pertaining to the "Union," everything of Telegraphic interest to Telegraphers. Correspondence, Scientific Articles, Extracts, from Works on Telegraphy; Articles upon Electricity and Magnetism; Statistics; Improvements in Telegraphing; Telegraph Instruments and Materials; Promotions, Removals, Resignations, Withdrawals, Marriages and Deaths of Telegraphers.

Subscriptions will be received for three, six, or nine months, or one year, at Two Dollars per annum, *payable in advance*. Any person sending us the yearly subscriptions of six persons, outside the "Union," will be furnished a copy for one year.

A limited number of Advertisements of Dealers in Telegraph Materials will be received.

Number Three will be issued on Monday, November 28th, 1864.

For particulars, address the Editor.

THOMAS HALL,

(Successor to Palmer & Hall.)

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TELEGRAPH CELEBRITIES.

The undersigned, after considerable time, labor and expense, has been successful in procuring and now offers to his colleagues

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Single copies, or the whole number, can be obtained at the rate of *Twenty-five Cents each*. The single Portraits ordered can be sent by mail; every four, or less, not exceeding the postage of a single letter. Among the Portraits are those of

Professors—S. F. B. Morse, R. E. House, A. Bain.
Presidents—H. Sibley, J. H. Wade, E. S. Sanford, J. D. Caton, H. O. Alden, F. Green, C. W. Field and H. Allan.

Superintendents—O. S. Wood (the first Morse operator in the United States). M. Lefferts, A. Star, ger, W. P. Westervelt, J. D. Reed, J. S. Bedlow, A. A. Lovett, (deceased), O. A. Dodge, E. Cobb, J. C. Hinchman, A. G. Davis, W. O. Lewis, D. Brooks, G. W. Gates, J. Hoyt, S. M. Stebbins and J. Gamble. Others will be added from time to time.

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JNO. HORN, jr.,

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P. O. Box, 3,331 New York.

NEW YORK, October, 1864.

THE

TELEGRAPHER.

"Canst thou send lightnings, that they may go and {
say unto thee, Here we are?"—Job xxxviii, 83.

N. T. U.

{ "I'll put a girdle around about the earth in forty
minutes."—Shakespeare.

Vol. I.

New York, Monday, November 28, 1864.

No. 3.

ORIGIN OF ATMOSPHERIC ELECTRICITY.

[From De La Rive's Treatise on Electricity.]

Volta and De Saussure had thought they were able to attribute atmospheric electricity to the evaporation that takes place upon the surface of the globe. De Saussure, in particular, had shown, by a great number of experiments, that whenever water, pure, or more or less salt, acid, or alkali, is projected upon a metal crucible, heated to redness, the evaporation that takes place is accompanied by a strong liberation of electricity. But we have shown that this liberation is not due to evaporation, but rather to a chemical action. M. Pouillet has shown that, if the crucible is of platinum, and the projected liquid distilled water, there is no electricity produced. It is no longer the same, according to him, if the water is salt; in this case there is a chemical disaggregation, even with the platinum crucible, and there is a liberation of electricity. Now, as the immense proportion of water that is evaporated at the surface of the earth, is the water of the seas, which is salt, M. Pouillet is disposed to see, in this evaporation of sea-water, the source of atmospheric electricity. He adds to it, as a second source, the vegetation that takes place upon the solid part of the surface of the globe, which, according to him, furnishes positive electricity to the air, whilst it gives negative to the ground. But we have seen that the liberation of electricity in the act of vegetation, is more or less questionable, and in any case, is very feeble, and very insufficient, to account for the considerable electric charge of the atmosphere. With regard to the evaporation of the sea-water, it would appear, according to some experiments of M. Reiss's, that it is to the friction of the drops of water drawn along with the vapor, against the sides of the platinum vessel in which the evaporation is brought about, rather than to the evaporation itself, that the liberation of electricity would be due, which would thus not result from chemical segregation.

It seems, therefore, necessary to recur to more general causes, in order to find the origin of atmospheric electricity. The idea had been entertained, of seeking for it in the calorific action of the sun upon the atmosphere, and in the distribution of temperature, which is the consequence of this; but hitherto experiment has never been able to demonstrate in gases and vapors, the slightest trace of thermo-electricity. This negative result is a necessary consequence of the theory of thermo-electric phenomena, such as it comes out from the labors of Magnus; besides, liquids themselves not being susceptible of becoming electric by heat, vapor and gases, must be less so.

It is also in the action of the solar rays, that M. Schoenbein wishes to find the cause of atmospheric electricity; but it is in their chemical and not in their caloric action. After having proved that, under the influence of light, oxygen is susceptible of exercising a chemical action, as if it were ozonized, M. Schoenbein considers that the oxygen of the air, under the influence of the solar rays, becomes capable of acting electro-chemically upon the molecules of water. There results from this an electric polarization of the filaments of the particles of water of which the clouds are composed, and consequently an electric tension. But this theory would require, in order to be justified, to rest upon direct and positive experiments; and besides, it would only account for the electric manifestations of storm-clouds, and not for those of the atmospheric air in the normal state.

M. Becquerel, sen., as the result of researches upon the liberation of electricity, which takes place at the contact of the ground and a bed or stream of water—a liberation which he has succeeded in rendering very sensible—has asked, if we could not find, in the production of electricity, the origin of that which charges the atmosphere. When the water evaporates, either from a stream of water or from the ground, it must necessarily carry with it an excess of electricity of a similar nature to that possessed by the surface from which it evaporates, which is diffused in the atmosphere. This electricity may arise, not only from the reaction of the water of the river upon that which surmounts the ground, but also from the decomposition of organic matters; in this latter case, the vapor is always positive, whether it arises from the river or from the ground, in which the decomposition is brought about; in the former case, the two vapors are contrary signs; the effects are the complex.

There is, in M. Becquerel's theory, one point which appears to us perfectly plausible; it is, that the vapor of water is the vehicle which carries into the atmosphere the electricity with which the liquid from which it emanates, is charged. But the cause to which he attributes the production itself, of the electricity, does not appear to us either sufficiently general, or sufficiently constant, either in intensity or in the nature of its manifestations, to be able to be considered as the veritable and only source of atmospheric electricity.

We consider, therefore, that we must seek for this source in some natural action of an order superior to those that we have pointed out. We can find an action of this kind only in the influence of the sun upon the earth, or in the earth itself. We have excluded the chemical action of the sun; with regard to the direct action, it might, perhaps, give rise to closed currents, constituting magnetism; but we do not see how it could develop upon our globe static electricity, and in particular, charge, at the same time, the earth itself with negative electricity, and its atmosphere with positive electricity. It is, therefore, in some great, natural phenomenon operating at the surface, or near to the surface, of the terrestrial globe, that it seems to us the origin of atmospheric electricity ought to be found; and this phenomenon appears to us, to be the continuous chemical action that takes place upon the interior surface of the solid crust of the globe, where the limits exist between the portion already solidified, and that which is still in the state of incandescent liquidity. This chemical action evidently arises, not only from local action, but also from infiltration of the water of the sea; and it must follow from this, according to the known laws of liberation of electricity in chemical actions, that this water is charged with positive electricity, whilst the solid part of the earth is charged with negative electricity. The vapors that rise from the sea, would, therefore, constantly carry away with them into the atmosphere, positive electricity, while the globe would retain, in the part where there is no sea, negative electricity.

But it is especially in the tropical regions in which the evaporation is much more active, that the atmosphere would receive from the sea those positive vapors, which, after being raised more or less vertically, would be driven into two hemispheres by the tropical current of the high regions of the atmosphere. Traveling first horizontally, this current of air, charged with positive vapors, would always approach more towards the surface of the ground, in proportion as it became cooler in receding from the equatorial regions; and, at the poles themselves of the earth, or in this neighborhood, it would come almost into contact with the negative ground, thus producing the phenomenon of polar aurora. We conceive, likewise, in this theory, that the atmosphere must contain much more of positive vapor in the hemisphere in which the sun is situated, than in the hemisphere in which it no longer is, since the evaporation there is much more powerful; that hence it is between the vernal and the autumnal equinox that the greatest number of storms must take place in the northern hemisphere, whilst it must be the reverse in the southern; with regard to the equatorial regions, it must take place there all the year equally.

On the other hand, the vapors must become much more lowered in the Northern hemisphere than in the Southern, between the autumnal and vernal equinoxes, and reciprocally for the Southern hemisphere; thus, no longer give rise to storms, at least very rarely, but essentially to fogs, always positive, which cover then in great part the surface of the earth. Besides these positive vapors, which constantly rise from the sea, and which give to the atmosphere its positive electricity, there comes out from the solid earth itself, or rather from the water that it contains here and there, and which is in contact with it, negative vapors, which, especially in summer, when the evaporation is more active, neutralize in part, on rising into the atmosphere, its positive electricity, at least in the region nearest to the earth. It is from these negative vapors, that rise from the ground, that the lower negative clouds are derived, whose presence contributes essentially to the storms of summer, and in particular to the production of hail. When very thick and very dense, they attract the positive clouds of the high regions of the atmosphere, filled with icy particles, which become the nuclei of hailstones, or those of large drops of rain, if the temperature is not sufficiently low.

(To be continued.)

THE TELEGRAPHER.

GENERAL OFFICERS

OF THE

NATIONAL TELEGRAPHIC UNION.

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DETROIT DISTRICT,

(Numbers 29 Members.)

DETROIT, Mich., Oct. 22d, 1864.

Special Meeting of this District, held at 4 o'clock this p. m., ten members present. Meeting organized by Mr. Farnsworth taking the chair, when the following business was transacted:

Moved, That a tax of fifty cents be levied on each member of this District for the purpose of paying the incidental expenses of the District organization.

Carried unanimously.

Moved and seconded, That Messrs. Cowlam and Sullivan be appointed a Committee to solicit subscriptions for *The Telegrapher*. Carried.

Other subjects of interest were presented and discussed, and after a very satisfactory meeting, we adjourned, to meet the first Saturday in November.

The members all take especial interest in the Newspaper enterprise, and will give it a hearty support. We hope to send the subscription of every member in this District.

New members will be added to our number at our next meeting. Believing as we do, that the Association is the best means of advancing and improving our interests and standing, we shall do all we can to extend and uphold the Union.

G. FARNSWORTH, Dist. Director.

C. CORBETT, Dist. Director.

ALBANY DISTRICT.

(Numbers 20 Members.)

ALBANY, Nov. 1st, 1864.

Meeting called to order at 10, p. m., by Local Director. Eleven members present. Minutes of the last meeting read and approved.

The Local Director announced the names of Henry Mack, of Stuyvesant, and Alexander Marvin, of Stockport, as applicants for membership. Their cases having been duly investigated, they were unanimously elected members of the Union.

The remainder of the time was entirely taken up in framing and adopting by-laws for our local government. Adjourned.

P. H. SHAWGNESSY, Dist. Director.

S. C. RICE, Dist. Secretary.

UTICA DISTRICT.

(Numbers 10 Members.)

UTICA, November 3d, 1864.

This evening, the operators of this city and vicinity held a meeting, for the purpose of organizing a District, to be joined to the National Telegraphic Union. Mr. D. L. Pike was acclaimed Chairman, pro tem., and J. B. Sabine, Secretary, pro tem. After a few remarks from those present, the following officers were elected: J. B. Sabine, District Director; S. Korn, Local Director; H. L. Bailey, Dist. Secretary; and D. L. Pike, Dist. Treasurer.

This District bids fair to be an extensive and enterprising one. Much interest is manifested by those at present in the District, also by many other operators in the vicinity.

H. L. BAILEY, Dist. Secretary.

NEW YORK DISTRICT.

(Numbers 67 members.)

NEW YORK, Nov. 1, 1864.

The regular meeting of this District was held this evening.

Meeting was called to order at 8.30 by the District Director. The Secretary called the roll, twenty members present. Minutes of the two previous meetings were read and approved. The District Director and Treasurer read their reports: the report of the latter was accepted and ordered on file.

Mr. L. H. Smith presented his resignation of the office of District Director, giving as his reasons, first, that the late Convention adopted a resolution forbidding a General Officer from holding a District Office; 2d, that his duties as Editor of *The Telegrapher* would prevent his attention to the duties of District Director, even if his new office is not considered a General one. On motion, his resignation was accepted.

The Director then announced that the election of a District Director was in order, and appointed Messrs. Parsons and McAneeny as tellers of election.

Messrs. C. H. H. Pannell, W. Steinhoff and R. M. Mattocks were nominated for the office. On the first ballot, Mr. Steinhoff received fourteen votes; Mr. Pannell, three; Mr. Mattocks, two. On motion of Mr. Mattocks, seconded by Mr. Pannell, Mr. Steinhoff was declared unanimously elected.

Mr. Ex-Prest. Smith, on behalf of the Committee appointed at the Sept. meeting to draw up resolutions of thanks to the Philadelphia District for their generous hospitality to the delegates from this District to the Convention, read his report, which was accepted and placed on file.

Mr. F. G. Beach moved a vote of thanks to Mr. L. H. Smith for the energy and faithful manner in which he has conducted the affairs of the office of District Director. Adopted.

The Director suggested that the Corresponding Committee, appointed at the May meeting, who have, with the exception of one of its members, been remiss in its duties, be discharged and a new one appointed.

On motion, the Corresponding Committee was discharged, and, on motion of Mr. F. G. Beach, a Committee of five was appointed in its place, composed of the following named members: Messrs. F. G. Beach, C. H. H. Pannell, J. L. Lillis, John B. Oltman, and W. H. Parsons.

On motion, Clause 4, Art. 1 of the Local By-Laws was allowed to remain as a law.

Mr. J. C. Christie moved, That a Committee of four be appointed to inquire into the expense and expediency of giving a ball. Adopted. Messrs. J. C. Christie, J. B. Oltman, D. W. McAneeny, and C. J. Ryan were appointed such Committee.

The Director arraigned for expulsion, for non-payment of dues, the following named persons: Henry Bishop, John K. Calvert, G. M. Simmons, L. W. Cogan, and J. J. Callahan. On balloting, the vote stood as follows: fifteen "For expulsion," one "For all except Simmons," and one as "Unjust."

The approval of the Executive Committee of the expulsion of Geo. Clarke was read by the Director.

On motion, the meeting adjourned at 10.30.

L. H. SMITH, *District Director*.

D. R. DOWNER, *District Secretary*.

SPECIAL MEETING.

NEW YORK, Nov. 10, 1864.

Meeting convened at 8.30 P. M.; District Director in the Chair. The District Secretary being absent, Mr. J. C. Christie was appointed Secretary, pro tem. Twenty-one members present.

The Director stated, that this meeting was called to hear and consider the report of the Committee appointed at the last meeting to enquire as to the "Expense and expediency of a Ball."

Mr. J. C. Christie, Chairman of the Committee, presented his report, which was accepted, and the Committee discharged.

A discussion upon the Ball question ensued, which was participated in by nearly every one present.

A Lecture was proposed as being more appropriate, but the majority advocated a Ball.

Mr. Christie moved the debate be closed, and the sense of the meeting be taken. A Ball was decided upon.

The following named persons were appointed a Committee "To solicit subscriptions, and are empowered, if they meet with success within two weeks, to negotiate for a Hall and music; if unsuccessful, to cease all efforts, and report accordingly, at the next regular meeting:" Messrs. Christie, M. B. Lillis, Burnham, Oltman, and Redding. Adjourned.

W. STEINHOFF, *Dist. Director*.

JOHN C. CHRISTIE, *Sec. pro tem.*

OFFICIAL.

ST. LOUIS, Oct. 12, 1864.

L. H. SMITH, Esq., DISTRICT DIRECTOR, NEW YORK CITY.

SIR: The action of the New York District, in expelling George Clarke, for non-payment of dues, is approved by the Executive Committee.

Other Districts will immediately be notified of the fact.

Yours, respectfully,

C. W. HAMMOND,
Chairman, Ex. Com.

WASHINGTON DISTRICT.

(Numbers 28 Members.)

The Eleventh Regular Meeting of this District was held this P. M.

After the adoption of minutes of the last meeting, rules were suspended for the purpose of electing new members.

The following persons were then elected members of the Union: Messrs. J. D. Tinney, W. L. Ives, and Wm. C. Hall, proposed by Mr. Young. Messrs. John W. Carver, H. R. Browne, A. H. Kanode, R. Hays Boyd, and L. A. Rose, proposed by the Director; and Mr. J. G. Garland, proposed by Mr. Berry.

The By-Laws submitted by the Committee at the last meeting having received a requisite two-thirds majority were declared adopted.

Report of the Committee on room, in substance, that the use of his office for the meetings of this District, had been generously donated by Mr. G. W. Adams, Correspondent of the Western Press, was accepted, and Committee discharged.

The following Resolutions were offered by Vice-President Young:

Resolved, That the thanks of this District are hereby tendered to Mr. Adams for his kindness and generosity in granting us the use of his room.

Resolved, That the Recording Secretary furnish Mr. Adams with a copy of this Resolution. Adopted.

Vice President Young offered the following:

Resolved, That there be printed, under the direction of the District Director and his Council, fifty copies of the Local By-Laws, for the use of the members of this District. The District Director to draw on the District Treasurer, in the usual manner, an amount of money, sufficient to pay for the printing of the same.

Mr. H. B. Berry offered the following resolution:

Whereas, By an article which appears in the October number of *The Telegrapher*, signed "Susannah," in which the writer expresses a desire to become a member of the Union—and

Whereas, The said "Susannah" appeals to the generosity and gallantry of our sex in a manner which only the gentler sex can assume, therefore, be it

Resolved, That we fully appreciate the kindly manner in which the Editor of *The Telegrapher* has answered the communication, and we earnestly recommend and urge the New York District to examine the applicants in accordance with Clause 1, Section 2, Article 6 of the Constitution, and Clause 1, Section 1, Article 7 of the By-Laws. Should they meet the requirements therein prescribed, it is the opinion of this District, that they be admitted on an equal footing with the present members of the Union.

The foregoing Resolution was first made the special order for next meeting, but afterwards reconsidered, and a second reading called for.

Mr. Young remarked, that this Resolution opens the question in reference to the admission of females to the Union; that, if admitted, they would be governed

necessarily by the laws of the Union; also, could hold auxiliary meetings, subject to said laws.

Mr. Berry thought, the only objection would be, placing ladies on an equal footing with present members. If, indeed, they would attend the meetings it would be an inducement for the members to attend, which would be especially beneficial in the N. Y. District, where, we understand, members were not addicted to regular attendance.

Continued discussion prevailed till, on motion, the Resolution was adopted with no dissenting vote.

Adjourned, 4.30, P. M. WM. H. H. CLARKE, *Dist. Director.*
FRED. W. ROYCE, *Dist. Secy.*

BALTIMORE DISTRICT.

(Numbers 41 members.)

BALTIMORE, Nov. 6th, 1864.

Meeting called to order at 3.30, P. M., District Director in the Chair.
Minutes of previous meeting read and approved.

No reports of officers or committees received.

An application for membership, from A. D. Norwood, was read. Objections being made to his admission, his case was indefinitely postponed.

The following were duly elected members of this District, W. F. Snyder, J. B. Teakle, J. B. K. Spalding, William Barrett, all of Baltimore, J. H. Miller and W. E. Veructson, of Cumberland, Md., W. A. Stuart, of Washington, and G. W. Shock, of York, Pa.

Mr. Wilson having received notification from the Treasurer, of J. N. Worl and D. F. S. Ways, being in arrears for three months' dues, moved, that they be expelled, remarking, that he had repeatedly requested the payment of Mr. Worl's dues and had received so many broken promises, concluded he never intended paying them; and that Mr. Ways had expressed his unwillingness to be longer considered a member of our "Union," and had been heard to express himself disparagingly of our principles. His plea for non-payment of dues is his objection to our young Treasurer, who is highly esteemed and enjoys the full confidence of all our members. Motion unanimously adopted.

The following quarterly report of the Treasurer was then read and adopted.

TREASURER'S REPORT of Baltimore District, National Telegraphic Union, for Quarter ending October 31st, 1864.

Aug. 31,	To National Dues and Initiation Fees.....	\$48 92
Sept. 30,	" "	15 50
Oct. 31,	" "	27 00
		91 42
Aug. 31,	To Local Dues.....	\$2 40
Sept. 30,	" "	2 60
Oct. 31,	" "	3 40
		8 40
Aug. 5,	By Amount paid Treasurer for Initiation Fee of Original 26 Members.....	82 50
Oct. 31,	" Bills paid, Local expenses acc't.....	3 50
"	" Unpaid dues.....	11 20
"	" Cash on hand.....	52 62
		\$99 88 99 82

There being no further business, on motion of Mr. Yeakle, the meeting adjourned.

A. WILSON, JR., *District Director.*

M. H. KERNER, *Secretary.*

PHILADELPHIA DISTRICT.

(Numbers 46 members.)

PHILADELPHIA, Nov. 6th, 1864.

Regular Meeting of this District was held in St. James Hall. Called to order at 3.20, P. M. District Director in the Chair. Twenty-two members answered to their names. Minutes of last meeting were read and adopted.

Mr. G. W. Carter proposed Mr. C. D. Middleton, from Kensington Depot, and Mr. H. J. Maynard, from Walnut St. Wharf (offices; Mr. Douglas proposed Mr. J. J. Carroll, from Walnut St. Wharf; Mr. Buckwell proposed Mr. Edward Morton, from Commerce Office; Mr. Robinson proposed Mr. J. H. Hunter, from American Office, and Mr. Clark proposed Mr. J. A. Wright, from Trenton Office, all of whom were duly elected to membership. Messrs. Middleton and Maynard being in waiting, were then introduced and signed the roll.

Committee on "Telegraphic Club Room" reported progress. On motion, committee was granted one month further time, with instructions to report in writing.

On motion of Mr. M. D. Buckwell, a committee of three was appointed to revise the local By-Laws; Chair appointed Messrs. M. D. Buckwell, T. G. Kennedy, and G. W. Snyder. Mr. James Partrick moved that, "Sickness, absence from city, or being 'on duty,'" be considered as only reasonable excuses for absence from regular meetings. Mr. Black offered following substitute "Resolved that the fine of 25 cents, for absence, be remitted, on the presentation of a reasonable excuse, to be adjusted by the Chair, with the consent of the meeting." Mr. Black's substitute was adopted.

Mr. Kennedy offered the following:

Resolved, That hereafter, the regular meetings of this District, be held on the first Monday in each month, at eight, P. M." Adopted.

Mr. James Partrick moved, Mr. Zeigler be fined 25 cents for absence. Negatived. Communications were read from the Corresponding Secretary National Telegraphic Union, and from the Secretary of Louisville District, ordered to be spread upon the minutes.

Adjourned until first Monday in December, at eight P. M.

R. J. BLACK, *District Director.*

T. G. KENNEDY, *District Secretary.*

BOSTON DISTRICT.

(Numbers 58 members.)

BOSTON, November 2d, 1864.

Regular meeting of this District called to order at 8.45, P. M., Mr. J. C. Upham in the Chair.

Minutes of the previous meeting read and approved.

The report of the Committee appointed at last meeting, to wait on all operators in the vicinity of Boston, *not* members of the Union, was read and accepted, and the Committee discharged.

Mr. H. W. Wheeler offered the following resolutions:

Resolved, That the Secretary, from and after this date, shall notify, in writing, all operators who may be offered and accepted as members of the Boston District.

Notices shall also be served on those rejected, stating the reasons therefor."—Carried.

Resolved, That the Director of the Boston District be, and is hereby requested to forward for publication, to the Editor of *The Telegrapher*, the names of all persons expelled from membership in this District since its formation, together with the cause of such expulsion. It shall also be stated whether such persons hold honorable certificates of membership."

After a brief discussion, it was moved to lay the latter resolution on the table. Carried.

Mr. J. Labonte read an article from a Rochester paper, stating that Mr. B. F. Blackall, Manager of the U. S. Telegraph Office, in the above named city, had accepted a position as instructor of Telegraphing, in a school or college, and he requested that some action be taken by the meeting, in the matter.

The subject was discussed at some length, and finally decided by the Chairman (pro tem.) recommending that the Director be requested to ascertain if said B. F. Blackall is a member of the Union; and if so, he communicate with the District of which Blackall is a member, the disapprobation of the Boston District, at the un-
worthy proceedings of the said B. F. Blackall. Adopted.

At 8.45 P. M., the meeting adjourned.

E. F. LEIGHTON, *District Director.*

GERRIT SMITH, *District Secretary.*

BOSTON, November 4th, 1864.

Special meeting called to order at 6.15, P. M. Twenty-six members present. Mr. B. G. Winter in the Chair.

Minutes of the previous meeting read and approved.

On motion of Mr. Davin, the resolution offered by Mr. H. W. Wheeler, at the previous meeting, relating to the publication in *The Telegraph*, of the names of all persons expelled from membership in this District, &c., was unanimously adopted.

The following persons having signified their desire to become members, were proposed by Messrs. Davin and Havens, and unanimously elected:

Messrs. Phillips and Richardson, of Providence; Charles J. Brown, of People's Office, Boston; J. W. Pritchard, of Fall River, Massachusetts; Frank Stevens, of Concord, New Hampshire; and Joseph Fowler, of Norwich, Connecticut.

The name of J. E. Selden, of the People's Office, Providence, having been offered, and withdrawn, for the reason that he, (Selden,) had been offered and accepted the position of instructor of telegraphing in one of the so called telegraphic colleges in that city.

Mr. T. A. Davin moved that a committee of three be appointed to draft resolutions expressive of our disapproval of his action. Carried.

Messrs. Upham, Calahan, and Leighton, were appointed as such committee.

A vote of thanks was tendered to W. G. Blanchard, Esq., agent of the associated Press, for the use of his rooms for this meeting.

Adjourned.

E. F. LEIGHTON, *District Director.*

GERRIT SMITH, *Secretary.*

To the Editor of the *Telegrapher*.

Pursuant to a resolution adopted at a special meeting of the Boston District, November 4th, requesting the Director to forward to *The Telegrapher*, for publication, names of all persons expelled from the Union in this District, together with the cause thereof. I herewith present the following names: E. W. Gibbons, A. W. Todd, Malcolm Gordon; all for refusing to pay their regular dues.

E. F. LEIGHTON, *District Director.*

BOSTON, November 11th, 1864.

ST. JOSEPH DISTRICT.

(Numbers 11 members.)

ST. JOSEPH, Mo., Nov. 14, 1864.

To the Editor of the *Telegrapher*.

We have started a nice little District of our own, called the District of St. Joseph, of which I have the honor to be District Director. We have ten members, beside myself, and I hope soon to have fifteen, which will include about all the operators who can fill the bill in this section. I am only waiting the necessary blanks to complete the organization.

Very truly yours,

S. P. PEABODY, *Dist. Director.*

QUICK WORK.

The Siberian telegraph line is working to Queenstown, Ireland, from Irkoutsk; Siberia—a distance of 6,500 miles. A despatch was recently transmitted the whole distance in two hours: a great feat, making a fair allowance for gain in apparent time.—[*London Telegraphic Journal*.]

TELEGRAPHIC LINES are to be established between the leading cities of Mexico, communicating by way of Texas with the United States. Another line will connect Mexico with Yucatan, and a sub-marine cable will be laid to Cuba.

In this way it is expected that Mexico City will soon be in direct and instantaneous communication with New York, Havana, and San Francisco.

HAVANA, CUBA, November 2d, 1864.

The Captain-General gives a grand ball on the 19th, the Saint's day of the Queen, and the 27th anniversary of the first railroad, and the 11th of the first telegraph.

THE TELEGRAPHER.

VIEWS OF CORRESPONDENTS.

LOUISVILLE, Ky., Oct. 19, 1864.

To the Editor of the Telegrapher.

I regret that I have not been able to furnish you with a report of the doings of our District ere this; but the sickness of myself and the absence of the District Director, combined with an unusual press of business duties, delayed our monthly meeting far beyond its usual time. My promise to provide you with a report of the closing Dinner of our convention—the crowning testimonial of the hospitalities of our Philadelphia brothers—was made at a time when I supposed that I should have the leisure to prepare a notice worthy of the subject, but my indisposition from a severe cold, contracted while returning home, has unfitted me for anything in that line.

Our monthly meeting was held on the 25th of September, at which most of the members residing in the city and vicinity were present. The report of the delegate to the National Convention was the principal business transacted, aside from the matter of subscriptions to *The Telegrapher*. As the time for attending to this was very brief, and our members living at such a distance from our District headquarters, the District Director was authorized to order seventy-five copies of the paper, and distribute them among the members—the number of copies to be required regularly to be decided hereafter. The District Director was also authorized to assess each member fifty cents, in addition to their quarterly dues, to defray the incidental expenses of the District.

After the reading of the report, which was accepted, and ordered placed on file, and a copy forwarded to the Editor of *The Telegrapher*, a resolution of thanks to the delegate was adopted for the faithful manner in which he had performed his duties.

In accordance with the suggestion of the delegate, the following resolutions were unanimously adopted:

Resolved, That the thanks of this District are due, and hereby tendered to Mr. R. J. Black, the District Director, and to the members of the Philadelphia District of the National Telegraphic Union, for the extremely hospitable manner in which they entertained the delegate from this District, during his stay in their city, in attendance at the recent Convention of the National Telegraphic Union.

Resolved, That the members of this District heartily appreciate the kindnesses then and there shown, as evidences of the regard and fraternal feeling which our Philadelphia brothers feel towards the members of our Union; and we hope that, at no very future day, we may have an opportunity of reciprocating, in kind, the hospitality so generously and freely bestowed.

Resolved, That the above resolutions be forwarded to Mr. R. J. Black, and a copy of the same published in the columns of *The Telegrapher*.

The facilities for informing the members of the Union of the action of their District meetings, through our paper, will be valued by us, as very many of our members are in localities inaccessible by direct telegraphic communication, and our many duties prevent us from being able to furnish each with a report of our proceedings.

The appearance of your first number was eagerly looked for, and heartily welcomed when it arrived. Every one was pleased with its appearance, and perused the complete report of the proceedings of the convention with much interest. I can assure you that it will receive a hearty support from the members of this District, and we all join in the heartiest of wishes for its long life and continued prosperity. It will supply a want which has long been felt in the Telegraphic community.

Last Saturday Mrs. Robert Reaser, of Wellsville, N. Y., arrived in this city, from Nashville, with the remains of her husband, an operator in the military corps, who died suddenly at Waverly, Tenn., in Captain Van Duzer's department. He was formerly an operator on the New York and Erie Railroad at Wellsville, New York, and had been in the military corps but a short time, during which he became greatly endeared to his associates and superiors by his noble qualities of heart and mind, and the faithful manner in which he performed his duties. Captain Van Duzer and the operator friends of the deceased procured a neat metallic case, in which his remains were placed, and deposited in the vault, at Nashville, until the arrival of his wife, who was promptly notified of her bereavement. The officers of Adams's Express Company, through their agent, Mr. L. C. Weir, of Cincinnati, generously tendered the free transportation of the remains to his former residence. This is but one of the daily instances, in which the officers of this Company have shown their appreciation of the efforts of the humblest of our profession to accommodate them, and facilitate their business. The officers and agents of their western department are men of large hearts, and they are ever ready and willing to oblige operators every way in their power.

Mrs. Reaser remained here over Sunday, and left on the evening of that day for home. During her stay she was unceasing in her expressions of gratitude to Capt. Van Duzer, and the operators of Nashville, for the faithful manner in which they cared for the remains of her deceased husband, and for their consoling expressions of sympathy and numberless acts of kindness during her stay in that city, and she certainly will never forget them. The lady being quite a competent operator, Captain Van Duzer has very kindly tendered her the position which her husband so acceptably and faithfully filled, and she has accepted the offer, as a means of support for herself and two young children. The noble-hearted Captain is always doing some characteristic act like this, and thus he has won the unbounded respect and esteem of all the employees of his department.

Mr. F. W. Bowen, the Superintendent of the Indianapolis and Jeffersonville Railroad; Mr. C. P. Atmore, the Agent of the Bellefontaine Railroad, and Mr. Wm. Hunter, the General Supply Agent of the Western Union Company, at Cleveland, kindly furnished Mrs. Reaser with the necessary papers over their roads to Dunkirk, thus saving quite an outlay, which would be required for traveling expense. The liberality of these gentlemen to the members of our profession justly entitles them to what they fully deserve, the everlasting gratitude of all who are made the witnesses or recipients of it.

The cause of our Union is vigorously prospering in this vicinity, and, ere long, I hope to be able to inform you, that our District embraces within its fold all the really good operators of this and the adjoining States.

Wishing for our Union, and *The Telegrapher*, the unlimited influence and prosperity which they deserve, I am, truly yours,

J. J. F.

PHILADELPHIA, Nov. 3d, 1864.

To the Editor of The Telegrapher.

Your very able article in number two, entitled "Has Telegraphing degenerated?" meets with universal approval in this district, notwithstanding the fact that it requires no small amount of candor, on our part, to acknowledge a truth so humiliating to our sense of self-respect.

The word "Telegraphing," however, is one, which, in my opinion, admits of too broad a construction to be used with propriety in this connection.

That Telegraphing, as an art, has degenerated, will scarcely be conceded by any one at all conversant with the facts of the case; but for the benefit of those having doubts on the subject, I will make a short extract from a work called "Electric Science, By F. C. BAKEWELL, London, 1853." It is as follows:

"The Electric Telegraph Company, when they employ any other instrument than the needle, use that of Professor Morse, with the substitution of electro chemical marks for those produced by mechanical pressure. The rate at which messages can be transmitted by means of the key, with a single communicating wire, is about *ninety letters a minute*. The transmission, however, requires the utmost attention on the part of the operator, who cannot continue to transmit, at that rate, for many minutes at a time."

No comments on the above are required. It is only necessary to contrast Telegraphing eleven years ago with that of to-day, and then answer the question, "Has it degenerated?"

"When Telegraphing was in its swaddling clothes," to quote from your leader, "men of education went to the key." Very true, M^r. Editor; but it must be borne in mind, that with all their intellectual superiority, they were incapable of that perfection attained by first class operators of the present day—not because of their education, but they began the business too late in life. As well might a man, forty years of age, who has no music in his soul, attempt to rival Strakosch, as one of the same age aspire to become a good operator. That nimbleness of hand, necessary for the delicate manipulations of the key, and those quick perceptive faculties of the mind so essential to speedy operating, must be developed in youth, when the twig can be bent. The sequel of all this is, that most of these educated progenitors have been crowded out by the rising generation of operators.

It is far from my purpose to disown a proper cultivation of the intellect. It is the man who makes the business, not the business the man; and therefore, would we elevate the profession, each one must improve himself. But I cannot, as some would try to do, heap all the blame upon the shoulders of the operators. Much is attributable to the fallacious policy, which judges operators alone by their speed, regardless of reliability, good judgment, or skill in other particulars. Furthermore, there is another grave error committed now-a-days, particularly in large cities, in the selection of material for operators. News-boys and boot-blacks, out-growing their legitimate calling, aspire to the position of messengers—promoted thence to the occupation, wherein they are so appropriately denominated *Dummy-boys*, and anon they discover themselves transformed from Printer's *devils* into *imps* of Electricity, in the short space of one or two years. What wonder is it, that from stock like this flow such brilliant conceptions as that ascribed to the Virginia R. R. "Plug," who, when requested to put on a ground wire, brought to the office a box filled with the "sacred soil" into which he inserted a wire, and then triumphantly informed the Superintendent of his great achievement.

Whether operators will continue to have no ambition further than to become a mere machine, by which messages are transmitted, is a question which they alone must answer.

Why is it they do not strive to acquaint themselves with the sciences that pertain to Telegraphy? Would not such a course offer sufficient inducements to warrant the attempt? Who could possess greater advantages for invention than those before whose eyes the strange phenomena of electricity is of daily occurrence?

Let us take these questions to heart, brother operators, and act in accordance with their teachings.

VOLTA.

"SUSANNAH" AND HER SISTERS.

To the Editor of The Telegrapher.

Timidly and modestly the color-bearer of our "Fairy Light Guard" gently knocks at the gate of the "Telegraphic Union" and asks, in behalf of her sisters, if we will grant them admittance. I am pleased to see the encouraging words which greet her, and that she is kindly invited to present her application in due form. I am sure the members of the Union will welcome such of our sister telegraphers as wish to connect themselves with it, if they meet the requirements of our Constitution.

It cannot, however, be denied, that a prejudice exists in the minds of some of the male members of the profession, against the employment of ladies as operators. Let us see if this feeling is entirely without cause.

It is a fact that I much regret being obliged to record, but it is none the less true, that the average standard of attainments in the art of telegraphing, among ladies, is far from being what it should be in many respects, and not equal to what we have a right to expect, from their proverbial quickness and dexterity in other matters of somewhat similar character. What good reason can there be for the indisputable fact, that much the larger proportion of errors, in transmitting and receiving messages, are made by the female operators. Although in education and intelligence they are fully equal to their professional brethren. In the matter of penmanship, also, very many of them are sadly deficient; not that the gentlemen have attained perfection, by any means, but, as a rule, they are far in advance of their sisters in this important particular.

Again, our fair friends, in writing with the key, might find room for great improvement. It is rare to find one who is contented to write the Morse alphabet plainly and steadily, in good honest dashes and dots. Sundry embellishments must be added which are neither ornamental nor useful. The disagreeable and affected style of transmission known as "clipping," which all good operators guard themselves against with the utmost care, and which gives rise to innumerable vexatious errors when the lines are working badly, appears to be a universal favorite among the sisterhood. Indeed, some of them have been known to recommend it as a peculiarity worthy of imitation!

I have, also, been surprised and pained to observe, in a few of them, an overbearing and uncourteous manner of transacting business over the wires, which is certainly not calculated to promote good feeling towards them among their co-laborers of the other sex.

Now this is all wrong, and should be reformed at once. I have pointed out some of the causes of the existing prejudice, of which our sisters complain; and now permit me to remark, that they have the remedy in their own hands. They have the intelligence, the education, and the manual dexterity necessary to become first class operators. Let them earnestly strive to become such, and they will not find themselves unappreciated. There is a broad field open before them, if they will but make themselves worthy to occupy it.

That this result can be attained, we have abundant evidence. I could mention a telegraph office doing a very large commercial business, of a nature requiring the utmost accuracy and dispatch, and which is carried on entirely by two ladies, to the perfect satisfaction of the officers, operators, and patrons of the line. Another large office in an inland city, between New York and Boston, is managed with equal ability by the young lady in charge. These and several other instances that might be referred to, show what the girls can accomplish when they try. If they will be true to themselves, and do the best of which they are capable, I pledge them that they will gladly be welcomed, not only into the National Telegraphic Union, but to an equality in other respects with their brother telegraphers, of an equal grade of attainments.

SPARK.

PHILADELPHIA, Nov., 1864.

To the Editor of The Telegrapher.

In answer to a portion of the question asked by "AJAX," in your last number, I would say, that, in the Fall of 1860, Mr. James Fisher of Nashville (Tenn.) Office sent fifty-five words in one minute, and at the rate of fifty-two words per minute for five minutes—Mr. James Leonard, of Louisville receiving it. This is, I believe, the fastest time on record.

[This equals the speed of the printing instrument, and we very much doubt if a Morse key can be manipulated intelligibly at this speed for any length of time.—*Ed.*]

NEW YORK, Nov. 11th, 1864.

To the Editor of the Telegrapher.

As a member of the Union, I have been repeatedly questioned by operators, not connected with the Union, as to the objects and benefits to be derived from membership. Many say, that, were it organized on a protective basis, similar, perhaps, to the Printers' Union, they would have no hesitancy in coming forward and joining us at once; but, under its present organization, they cannot perceive that an operator is benefitted in any way whatever, as a member, except by one clause alone, (the charity clause); and argue, that there are few operators who would not suffer much, before applying to such a source for aid. Now, as I am not sufficiently posted to enlighten these gentlemen, having been a member but a short time, I think that it would be well for you to write an article, defining our position, to enlighten those who are in the dark. I have been present, when other members have been similarly questioned, and find there are none who can set forth in a lucid manner, the objects of the Union, and the benefits to be derived therefrom. Every member seems to be as ignorant as myself in this respect, and when asked such questions, are at a loss for words to reply.

As far as I am concerned, I would be a member of any association of operators, whether I derived any immediate benefit or not, because I consider that any such Union of the fraternity will greatly tend to exalt the profession, and make all operators better men. I think we are in need of more light in the course of our onward progression; and I know of no more suitable place, than the columns of your paper, from whence bright rays may be shed to guide the footsteps of those now members, and those yet to become so, on a path which we cannot expect will always be strewn with roses.

The Constitution and By-Laws are not explicit enough in pointing out the real objects of the Union, and there seems to be something left out, which should have been put in. I will venture to say, that there are not ten members in this District who can clearly point out the objects of the Union; and I earnestly hope you will give us all a clear understanding.

Yours, &c.

73.

To the Editor of The Telegrapher.

I will give you a brief account of the construction of the line over Mount Washington—the line on the North-east, or Glen House side, follows the carriage road up to the ledge, or to the limits of vegetation, from there it runs in nearly a straight line to the summit, touching the carriage road at several of its curves, and is about 7 miles in length. On the South-west side we commenced at the Crawford House, and ran the wire down the stage road two and a half miles toward Brabrooks White Mountain House, thence, striking the old Fabyan path, it follows up the Ammonoosuc river to within two and a half miles of the summit, to a point on the mountain known as Cold Spring; from thence it follows the path for nearly a mile to the limit of vegetation, and from thence in nearly a straight line to the summit. On this side it is eleven miles in length, making eighteen miles in all.

On the Glen House side the material was conveyed by teams up the carriage road, but in the Crawford House side it had to be taken up on pack horses.

The wire used was No. 9, galvanized; the insulators, glass and brackets. For poles we used such as could be conveniently procured, frequently substituting trees, in which case they were cut off some twelve or fifteen feet above the ground, to prevent them from swaying in heavy gales.

Up to the limits of vegetation fifty insulators were used to the mile, above there sixty. The poles used near the summit were cut on the side of the mountain, they are six feet long and four inches through at the top. To fasten them, rocks had to be used altogether, as there is little or no soil for some four miles on the summit of the mountain.

The line was constructed during the month of June, the men of the North-east side boarding at the Glen House; teams being furnished to carry them to and from their work by Mr. Thompson "mine host" of the Glen; but the men on the other

side considered themselves more fortunate, as they took their "hotel" in the form of a spacious tent along with them. Roughing it among the mountains at that season of the year was considered a high style of living; they were frequently serenaded by wild animals, such as the bear and lynx, or wild cat; species of the latter were frequently seen. Deer and small game were also very plenty, while the mountain streams were completely alive with spotted trout.

It was found impossible to get a ground connection on or near the summit, although the ground wire was carried some forty rods down the mountain to a living spring where there was plenty of water. I could not perceive the slightest escape.

This, I think, fully demonstrates that the springs near the summit are completely insulated from the earth below.

It was feared by many that the line would be broken by heavy storms, which frequently prevail even during the summer months, but it has fortunately escaped any material damage so far, although the summit operator informs me the wire was covered with ice three or four inches thick several times during July and August. That part of the line most exposed to the violence of storms has been taken down this fall, and now rests on the rocks.

Respectfully yours,

J. W. ROBINSON,
Superintendent.

CONCORD, N. H. Oct. 17, 1864.

[WRITTEN FOR "THE TELEGRAPHER."]

THE GENTLEMAN WHO SITS AT THE TELEGRAPH INSTRUMENT is of more importance than perhaps he ever imagined!

The simplicity of the machine, and the ease with which it is manipulated, are among the wonders of the Telegraphic art, in connection with his professional attention.

The science of the arrangement has been repeatedly explained, and yet many are ignorant of the principles involved. They are, however, in accordance with natural laws, in this, as in many other instances, applied to the uses of man, and which have entered largely into the art of war, business transactions, and everything else connected with social life. The great mass of the community know little beyond the fact that messages are transmitted "over the wires," and that this means of communication is far in advance of the locomotive, which was the first important improvement over the mail coach!

It may be repeated, the gentleman who sits at the instrument has an important business to perform; not, like politicians, to "pull the wires," but to give the proper direction over them. He may have as kind a heart as ever throbbed in a human bosom, and would shrink from the slightest suspicion of giving unnecessary pain; but he transmits the message, perhaps to a mother, that her son has either died from disease or from wounds in battle. Hopes of re-union, fondly cherished, are blasted, for the missive carries gloom and lamentation into the household. Alas! how often has this silent but swiftest messenger shocked the tranquillity of the strongest nerves, and, quick as lightning's flash, faded the color from the cheek.

And under the hand of the gentleman at the instrument passes many a message which may destroy dazzling prospects of abundant wealth, or damage the carefully matured plans of one man to overreach another. In the same hour, by expressive telegrams, the poor are elevated and the rich depressed.

The gentleman at the instrument, too, is the faithful medium of giving to the country immediate note of victories, by land and sea; electrifying, thrilling the patriotic heart with the distinctive announcement. The "telegram" receives the credit; nothing is thought of the telegrapher, whose words are "at his fingers' ends;" not in the human tongue, for the process is by manipulation. The instruments clickingly repeat the language with almost miraculous clearness—language which only the skilful operator can as readily hear and read as if the words were pronounced from the lips, and represented in print.

"Defeats," too, are flashed to the nation's heart and extremities. As not one of the thousands of intelligent telegraphers receives credit for good news passing through his hands; so, on the same principle, he receives no condemnation for the bad; for his specific duty or vocation exempts him from responsibility, excepting when he commits a material error in business dispatches, owing to almost undecipherable manuscript, such, for example, as when Mr. Jones tells his friend Mr. Thompson to "protect his note," the transcript requests him to "protest" it!

As long as errors appertain to human forms, they cannot be altogether avoided in affairs relating to human transactions; and therefore, it is just, that a reasonable degree of charity should be exercised concerning those committed in "the best regulated families," including the TELEGRAPH it being numerous in members, potential, important, responsible, and indispensable.

The gentleman who sits at the instrument plays an important part in the drama, farce, or interlude of love. He may, undesignedly, with his electric force, sever hearts, promising soon to "beat as one." Besides, he may do or undo numerous things, affecting the happiness or misery of incalculable numbers of the human family—not of his own will, but in the execution of the will of those who have their messages sent over the great telegraphic highway.

Gentlemen who sit at the instruments, amid the impatient clicking of machines, reflect upon the importance of your office, which is not only responsible but honorable—not only requiring skill, but mind, to execute the toilsome duty required of you.

Bound in "union" for mutual relief in days of sickness; so, in union, to promote one another's prosperity in times of health. Guided by justice, duty, and jealousy of self respect, you cannot fail to secure and maintain a position creditable to yourselves as individuals and as a fraternity; and may you always realize the delight of brethren in unity, for "the lines have fallen in pleasant places," and you have "a goodly heritage."

CITY OF WASHINGTON, October, 1864.

L. A. G.

To the Editor of The Telegrapher:

WIRE was originally made by beating the metal into thin plates, and then cutting it into slips, and rounding it with a hammer. The art of drawing the metal through a hole in a steel plate was practised at Augsburg in 1850, and in England in the middle of the 16th century.

J. L.



PUBLISHED BY THE NATIONAL TELEGRAPHIC UNION.

L. H. SMITH, Editor, P. O. Box 3,393, New York City.

MONDAY, NOV. 28, 1864.

NOTICE TO CORRESPONDENTS.

All communications to, or articles for insertion in, *The Telegrapher*, must be addressed to the Editor.
No notice will be taken of anonymous communications; the name and address of the writer must always accompany each article or communication.
Correspondents sending articles for insertion must write on but one page of each half sheet of paper.

REASONS WHY.

Associations, if for a good purpose, always tend to elevate the character and standing of its members; and they command respect as a body, which they would not receive individually. Union is strength, although an old saying, is truthful and worthy of remembrance. For the purpose of uniting the operators throughout the country in one common interest, was the fundamental idea of the originators of the Telegraphic Union. To succor the unfortunate and befriend the sick, is the corner stone of the Union structure. Professional, moral, and social improvement are the building material to be used.

It is remarkable that any one with common sense should ask the question that our correspondent "73," (whose letter anticipates this article but by a few days), does. A person blessed with benevolence and generosity would not stop to ask himself: What do I gain by joining this association?

In the first place you gain strength to combat with any wrong and correct any injustice. The strength you gain by unity brings you respect without your asking for it. Your voice is not as of one but of many, and has a volume and power that cannot be withheld. We of the East receive the generous aid of the West, and the North of the South, and *vice versa*. Our interests are identical. No. 1 must not be looked after to the injury of our brother.

Telegraphers have seen hard times, and will again, unless they prepare for the evil day.

Secondly, it is intended that an operator shall be able to find friends wherever he travels. If sick, he will be tenderly nursed; if penniless or unfortunate, he will be supplied in the one case, and befriended in the other. It will be asked: Do we not receive these benefits without joining the Union? Yes, wherever you are known or can bring proof of your worthiness, you do, to a certain extent, but only in few instances, with generosity. That which you receive in your need, is not only what you have been preparing for yourself, but is also generous aid from your brothers. If it never happened to be your good fortune to taste such sweet benefits, it may be your pleasure to generously act the part of the "good Samaritan." It is further intended to prevent the onerous demand upon a few, by such cases as the one which occurred recently in Boston, and another in this City. These demands are willingly met, but they are, nevertheless, oppressive. A fund can soon be raised by augmenting our numbers, and the prompt payment of dues, to easily meet all such demands.

Thirdly, it is further intended to elevate the profession. To educate operators beyond the rudiments of the art. Now, an operator is described as "a gay fellow," or spoken of as "fast," as if the more evil he plunges into, the higher the estimate put upon him. After reaching a certain dexterity of manipulation, operators of the new school cease to improve. Books upon electricity and magnetism are too expensive

for most operators to purchase, even if their migratory life did not prevent their possession, and we have never yet met with a work on these subtle agents in any office wherein we earn our daily bread, nor have lectures or instructions been accessible; and experiments have, to a great extent, been made in private, before a select few, or shrouded in mystery. It is the purpose of the Union to bestow upon its members these benefits.

PUCK'S IDEA.

The nations of the earth seem to realize Puck's idea in part. It was a bold and noble thought of the little fairy's, but we doubt his (or her) ability to perform the wonder within the time named. Be that as it may, we have to deal with the present. The nineteenth century is pregnant with great undertakings, and the next three years will bring forth grand results. In all human probability the earth will be girdled; literally tied up with iron pack-thread ere the dawn of '67. But two links are wanting to chain this globe of ours—the Atlantic Cable and the Collins' Overland Telegraph completes the circuit.

Then we cannot prevent our left hand knowing what our right doeth. If signs do not fail, an operator then can send and receive at the same time over one wire.

At present the two oceans are within speaking distance by the means of a continuous line from St. John's, Newfoundland, to San Francisco, but this is not the limit; the Pacific end is continued to Olympia, on Puget Sound in Washington Territory. Next spring, Captain Bulkley expects to commence operations from that point northward on the Collins' Overland line, and if he meets with no greater obstacles than he now anticipates, we may confidently expect to be holding a mysterious conversation with the Czar of all the Russias by the summer of '66.

America and England have joined hands once more to outwit Old Neptune. That the new Atlantic Cable will be a greater success than the first, is past all doubt. It yet needs trial to prove how long a cable will last in the deep sea. If the efforts of the managers of the Atlantic Company are crowned with success, we may hear for the second time a complimentary conversation carried on by our President and the Queen.

Shafner's sub-marine and overland northern route, via Iceland, Greenland and Labrador, will necessarily follow. This route has been surveyed, and is deemed feasible, and needs but a demand for greater facilities to put life into it.

From England to St. Petersburg and Moscow there are, we believe, two routes of telegraphic communication; and from the latter place the Emperor is building a line down through the wilds of south-eastern Russia, along the Amoor river, (upon the banks of which he is creating cities and villages) to its mouth, at which point the Overland Company connect with the Russian lines. The Russian portion of the earth's girdle is nearly complete, having been in course of construction for several years.

Before the rebellion, New Orleans was the most southern, and Fort Smith, Ark., the most south-western points reached by a continuous line of telegraph. Now we believe the California lines extend as far south as Los Angeles.

Cables have been projected between Panama or San Francisco and the Sandwich Islands, and in course of time from thence to Japan and China. Cuba can boast of two lines, both using the printing instrument; one the House and the other the Combination instrument. The American Telegraph Company of this City, endeavored while Mr. Eddy was alive to get permission from the Spanish Government to connect Cuba by the means of a cable with the United States, but an objection unsurmountable at that time prevented its consummation. We are not aware that since Mr. Eddy's death anything has been done towards this project. France has threatened to lay a cable to the Azores, and from thence to New York.

By the means of the Malta and Alexandria cable, England is able to meet her steamers on the Red Sea at Suez. The Red Sea cable which was to connect England with her Indian possessions, failed in laying. By the way of Constantinople telegraphic communication is maintained with Bussorah, at the head of the Persian Gulf, through which a cable is about being laid to Kurrachee, in India, to which point the Indian lines from Calcutta soon will be, if not already, extended. We see by the English papers, that Sir Charles Bright, the great Telegraphic Engineer of London, hopes to have telegraphic communication established with China and Australia, by means of a cable from Rangoon along the coast of the Malay peninsula to Singapore, thence by cable along the coast of Cochin China and China Proper to Hong Kong and Canton in China; and another from "Singapore through Java, and thence by the island of Timor to the Gulf of Carpentaria," Australia, where it will connect with the land lines of that illiputian continent. In a few weeks Russia will finish the continuation of her system of telegraphs through Persia to the Gulf. An American Company, recently formed in New York, are to take up communication at Canton, and extend it north through the principle cities of China, and if permitted will connect with the Russian lines on the northern limits of the Celestial Empire, to which point Russia is extending a branch line from the one along the Amoor river.

Our readers can see from this that there are but a few yet important connecting links to not only realize Puck's Idea, but inclose the earth within a complete net-work of wires.

It is a pleasure to be able to chronicle the advent of two more districts into the circle of the Union.

Utica, N. Y. and St. Joseph, Mo. have joined hands with us for the mutual benefit of all telegraphers. The former is the thirteenth and the latter the fourteenth District formed in accordance with the Constitution and By-Laws of the Union. On behalf of the Union and its members, we bid them welcome, and extend to them the right hand of fellowship.

The District Director (Mr. Peabody) of the St. Joseph District, has the honor of being not only the first mail, but the first yearly subscriber of this paper.

We have received assurances that a live District Director has been elected in the Maine District, which seems in a fair way to be resuscitated. The delegate from this District has, we learn, been very sick, which has prevented the fulfillment of his promises, but he is now working with his characteristic energy for the good cause.

The article upon expulsion in the last issue of *The Telegrapher* has been misunderstood by some of our readers, and for fear the misunderstanding is general, we make the following explanation:

It was not our intention to approve the expulsion of Mr. Bogardus for the *cause* assigned, although the first paragraph of the article would easily give that impression, yet we think the second paragraph would correct such an impression. It was our intention simply to commend the *promptness* and *energy* displayed by the members of the Albany District in dealing with one they supposed a delinquent.

It is the duty of the executive committee to decide the justness of such actions, and it is not for us to bias their decision by any remarks. After their decision has been published, we may see fit to disagree with them.

We take pleasure in calling the attention of our readers to the beautiful heading to our editorial column. It was engraved from a design drawn by Mr. F. L. Pope, Ass't. Engineer and Chief of the Geographical Department of the Russian Extension Line.

Mr. Pope's talent for drawing is as rare as his conceptions are beautiful, and his reputation as an artist is too well known for us to run together words of praise. His work speaks to the eye and tells a more flattering tale than we can write.

As we have had many applications for copies of the N. Y. District Local By laws, and as all the Districts desire their local laws printed, and as the printing of separate laws would be expensive, we suggest that all the Districts adopt the same local laws (we would recommend those of the N. Y. District, they being very complete), and club together and have a thousand copies printed, at a cost of three or four cents per copy. Spaces could be left for filling in time and amounts, as the different Districts may see fit. Action upon this matter cannot be taken too early.

It would please the members of the Union, we think, to learn from the President what has been done by the Committees upon the Motto, Seal and State Charter? Now is the time for the Charter Committee to commence their labors, as the State Legislatures are about convening.

The Committee on the Ball, to be given by the members of the N. Y. District have, we are informed, engaged Irving Hall and Wallace's band of this City for the 22d of March next. The Committee are now engaged in perfecting the preliminary arrangements for that entertainment, which will be, we are assured, a perfect success. This we do not doubt, considering the personnel of the Committee.

With this issue, the first quarter's subscriptions to *The Telegrapher* expire. From the many complimentary letters we receive, we feel assured these expiring subscriptions will be renewed, but if any of our subscribers need an invitation to continue their favors, we now cordially extend one to all our subscribers to renew their subscriptions at once.

The Song of Electricity.

I am the spirit of light and love;
To my unseen hand 'tis given
To pencil the radiant clouds above,
And polish the stars of heav'n.
I scatter the golden rays of fire
On the horizon far below;
And I deck the skies, where storms expire,
With a red and dazzling glow.

My being is like a simple thought
That dwells in a sinless breast;
A tone of music that ne'er was caught;
A word that was ne'er expressed.
I burn in the bright and burnished halls,
Where the fountains of sunlight play,
Where the curtain of gold and opal falls
O'er the scene of the dying day.

Away! away! through the viewless air,
Stretch forth your iron thread,
For I will not dim my sandals fair,
With the dust ye tamely tread.
Aye! rear it up on its million piers;
Let it reach the world around;
And the journey ye make in a hundred years,
I'll clear at a single bound.

MR. WM. LADD'S NEW ELECTRO-MOTIVE ENGINE.

This exceedingly ingenious machine consists of four bar electro-magnets firmly secured to the corners of a stout iron plate, forming the base of the instrument. To the top of these is secured a circular brass plate, carrying the break, revolving armature, &c. The connections are so arranged with the break, that the magnetism is excited at the opposite corner alternately.

The armature is formed of elliptical plates of soft iron, from which peculiar form during each quarter of a revolution it approaches two of the electro-magnets. The instant the major axis is in a line with the magnet, the current is changed to the other two, and this is repeated four times in each revolution.

By means of a screw and wheel the power is communicated to a shaft. The whole machine occupies a space of six inches square by seven inches high, and when worked with a small battery it exerts a very considerable power.—*Telegraphic Journal*.

The "City Line," or as it is now called, "The Metropolitan District of the American Telegraph Company," in this city has grown to formidable dimension. Seven years ago it consisted of but one wire, and half a dozen offices, one at each of the principal Hotels. In 1857 it was purchased from the owner for the American Company, by the late Jas. Eddy, Esq. who was then General Superintendent of this corporation. The line was put in thorough repair by Mr. Eddy, and connected to the Brooklyn and Fort Hamilton line, which had been built the previous year, crossing the East River, at Hell Gate, with a cable.

The "City Line" now consists of fifty offices, using eleven wires, which radiate from the General Office of the Company to all parts of this city, and to Hoboken, Jersey City, Williamsburgh, Brooklyn and Fort Hamilton, L. I., and taking in Yorkville, Harlem, Astoria, Long Island City (Hunter's Point), and the Atlantic Docks.

All messages coming to this city by the American, Western Union, or Erie lines for points above Canal and Catharine streets, or the adjacent cities, are delivered through the offices of the "City Line."

Messages are received at all these branch stations for all points in the United States and British Provinces, and forwarded to the central office, from whence they are transmitted to their places of destination.

Local communication is also kept up, whereby messages are transmitted from one part of the city to another, at a nominal charge.

These wires at the general office are worked by a dozen or more young ladies, many of whom read by "sound" readily, and will in time make first-rate operators. More than a thousand messages are transmitted daily over these wires.

BOSTON, Nov. 16, 1864.

To the Editor of *The Telegrapher*.

Understanding that the armature vibrating principle, is extensively used, on the Hicks repeater, in the western section of the country, will Mr. Hicks or some of the intelligent and scientific telegraphers, in that locality, who have had the necessary experience, please explain the advantages claimed, in the use of the above mentioned principle, for the benefit of those interested at the

"HUB."

A NEW TELEGRAPH BATTERY.

Mr. E. A. Hill, an operator at Galesburg, Ill., has invented a battery, which seems to present some good features. I find a description of it, which was published about a year ago in the *Scientific American*, from which it appears to be arranged in such a manner, that the zinc is supported near the top of the containing jar, while the copper, in the form of a hollow cylinder, remains at the bottom. The copper encloses the perforated receptacle of non-conducting material containing the sulphate of copper in its usual form of crystals. The jar is filled so as to cover the zinc, with a strong but not saturated solution of sulphate of zinc or of common salt. The greater specific gravity of the dissolved sulphate of copper prevents it from rising above the copper, so as to attack the zinc.

The inventor says that, "if the zincs are pure, the battery may be maintained as long as they last, by adding sulphate of copper in small charges every two or three days, and keeping the sulphate of zinc solution sufficiently diluted—say from 25° to 35° Baume's hydrometer."

He further states that, he has often tested it with the galvanometer, while in use on the line between Chicago and Galesburg, Ill.—96 miles—and thinks the circuit fully equal in strength to the Grove battery previously used; while for constancy and uniformity of distribution it is superior, for the reason that the current of a heavy Grove battery is of very high tension, and has a tendency to escape to the ground, unless the insulation is absolutely perfect.

In reference to this battery, Mr. S. L. Waite, Superintendent of the Burlington and Missouri River Telegraph, makes the following statement: "This battery has been in use on our line for the past ten months. The line at present extends from Burlington to Ottumwa, Iowa, a distance of 75 miles, and has seven offices in circuit. This line was fed for six months by a battery of 26 cups at Burlington, but for four months past an additional section of 14 cups has been used at the Ottumwa terminus, making a total battery power of 40 cups. The expense for 10 months of the Burlington battery, by a careful estimate, may be stated as follows:

60 lbs. sulphate copper, at 19, 20 and 25 cts. per lb.....	\$11 70
16 lbs. zinc, at 20 cts. per lb.....	3 40
Total for 10 months.....	\$15 10

This is at the rate of \$1 50 per month, or about 5 7-9th cents per cup per month. The battery at Ottumwa cost 5 11-14 cents per cup monthly. The battery evolves a remarkably steady and reliable current, and is not perceptibly injured by short circuit, or ground connections in its immediate neighborhood, and capable of feeding eight or ten circuits."

These tests certainly give excellent results as regards economy, and it would seem to be an arrangement requiring less attendance than most other batteries. It would, probably, also work well when used as a local battery.

It would tend to advance the interests of telegraphing, if the engineers and persons having charge of the batteries on the various lines, would furnish to *The Telegrapher*, for publication, statements similar to that of Mr. Waite, above quoted. The comparative merits and economy of different batteries could be arrived at, and much valuable information collected, which is not at present in an accessible form. Facts founded on careful observation, are worth volumes of theory.

ELECTRON.**CONSTANCY OF THE DANIELS' BATTERY.**

In order to increase still more the constancy of the Daniels' battery Father Secchi advises the use of fine sand or of powdered sulphur in the porous cell. He accounts for its action by supposing that when the ordinary liquid alone is used there is greater liability to local action taking place on the zinc. In a battery the circuit of which is closed for two minutes every quarter of an hour, the learned Father has used an ordinary piece of commercial sheet zinc, half a millimetre in thickness, which has continued in action for more than six months without showing the least sign of corrosion. For large elements, instead of porous diaphragms he uses bags made of coarse linen cloth well anointed with a luting of flour and lime. Those who have experienced the difficulty of procuring large porous cells would do well to test the contrivance.—[London *Chemical News*.

RAILWAY SIGNALING APPARATUS.

Mr. H. Allen sends us a description of a railway train signaling apparatus, which consists of a black board with a white and red flag painted on the surface on either side, such signals being understood by every one connected with the line of railway.

The pointer or flag staff consists of a very slim slip of ivory attached at right angles to the centre of a light permanent magnet, pivoted and oscillating between the poles of two electro-magnets, so that by changing the circuit, by depressing either key, the permanent magnet is attracted and repelled at the same moment, thus throwing over the pointer, which is retained in this position until the key reversing the circuit be touched. On the back of the dial, as a communicator, is placed a galvanometer, with a weighted needle suspended, oscillating between two bells or glasses, and which forms part of the circuit with the electric magnets, communication being made by a certain number of blows being given, to either, by the key being depressed according to the signal blocked.—*Telegraphic Journal*.

DAVID E. HUGHES.

It seems that many inventions are the result of accident. When Hughes invented the printing telegraph improvement, he was endeavoring to contrive a machine for copying extempore music, so that his melodious improvisations might not be lost. Boarding in the same house with him were the well known musical composer, Louis Hart, and the very intelligent telegraph operator, Norbourne M. Booth; one gave him the use of a piano, the other supplied him with electro magnetic instruments; a printing telegraph instrument was the consequence.

Hughes is now living in Europe, enjoying the well merited fortune which his genius has earned. At the time of his residence in Kentucky, he was twenty-two years of age, a beardless boy in face and stature, and apparently lacking in mental power. His features were careworn; when spoken to he had a constant grin or giggle, not calculated to impress his interlocutor favorably. His ear for music was so acute that he could tell to a semi-tone the note of anything sounded, from a dry stick to a shovel.

THE ATLANTIC TELEGRAPH CABLE.

ATLANTIC TELEGRAPH COMPANY,
12 ST. HELEN'S PLACE, BISHOPSGATE STREET,
LONDON, October, 1864.

CYRUS W. FIELD, Esq.

MY DEAR SIR—As our work is now getting fairly under way, a few particulars as to what is going forward here, in addition to my weekly reports, which I trust you receive regularly, will doubtless be of interest to yourself, and co directors in America, as well as to the shareholders.

The covering of the copper conductor with its four layers of "gutta percha" commenced on the 19th of April, and has since then continued slowly and with great care, being constantly under electrical tests by the aid of apparatus, which, if it had been available when our former cable was constructed, would have caused the very best portions of it to have been utterly rejected.

The present care, however, even under these searching tests, shows a perfection of insulation in its worst parts more than twice that of the high standard prescribed by the specification, and is undoubtedly the finest telegraphic core that has ever been constructed up to this period. Of this about eight hundred miles have at present been completed, or are in various stages of completion.

The homogeneous iron, which is a new feature in the construction of this cable, is, as you are aware, being provided by Messrs. Webster & Horsfall, at Birmingham. The total weight contracted for is sixteen hundred tons. The drawing of it was commenced on the 17th of May last, and we have an agent on Horsfall's premises who tests nearly every bundle of it for strength and elongation, and transmits his tests weekly to this office for examination. I, also, occasionally go down to Birmingham personally, and, in addition to the contractors, have at Marden wharf a man whose sole duty it is to retest the wire, when delivered in London. I need not say that all the deliveries are fully up to the specifications, as every bundle that is even doubtful is at once absolutely rejected. It is only fair to the wire drawers, however, to say that they are striving to the utmost to do their duty, and that the rejections have been very few. Upwards of five hundred tons have now been delivered.

Large stocks are also now on hand of the Manilla yarn, with which the iron wire is to be surrounded, and of the tanned jute, which forms the padding of the protection of the gutta percha core from injury from the compression of the external armor of the manilla-covered wire.

The deliveries of case from the Gutta Percha Works to the East Greenwich covering works commenced on the 21st of July, but a good deal of delay has necessarily taken place in commencing the last stage of the manufacture—that of covering the core with its external protection—owing to the fact, that, with a determination to omit no improvements that science and experience have suggested, the contractors have nearly remodelled the works at that place, all the covering machines have been taken down and reconstructed, and every appliance added which forethought and present knowledge can think of for the security, and preservation, and testing of the new cable. Eight immense iron tanks have been constructed—one for each machine—so that the cable passes directly out of the manufactory into the water; and twenty-four other iron tanks have been provided for the preservation of the core during its progress through the factory into the covering machines, with special arrangements for applying a severe and special test to every joint before it passes into the covering machine.

Owing to the length of time which these various important matters have occupied, it was not until Thursday, the 1st of September, that a machine for turning out the completed cable was started. Since then three other machines have got into full work, and a fifth machine will start before the end of the present week. The other three will be speedily set going, and the cable will then be completed at the rate of about eighty miles per week. At present a little over one hundred miles have been finished.

The Great Eastern steamship left Liverpool on the service of this company on Saturday, the 11th of July, and arrived at Sheerness on Wednesday, July 18, where she now continues. The contractors commenced on the 19th of September, to remove the floor of her upper deck—on the deck below which the iron tanks will have to be erected for storing the cable in water. These tanks will be three in number, and their dimensions about fifty-nine feet diameter by twenty feet in depth. The iron plates for them are being rolled and punched by Messrs. Westwood and Baillie, who rivet them together on board, and who are bound to complete them not later than the middle of December. The first tank is to be ready by the middle of November.

The government have appropriated two ships to the service of transporting the cable as it is made—from the works at Marden wharf to the Great Eastern at Sheerness. These also will each contain three iron tanks, so that the cable will never be out of water for more than a few moments at a time, from its first commencement at the Gutta Percha works to its submersion in the sea. The contractors have in stock the tanks for these ship, and they will therefore only require putting together.

I am happy to tell you, that as regards the portion of completed cable, nothing can be more satisfactory than the manner in which it can be coiled and handled. It was thought by some that the advantage gained by the great strength of the homogenous iron, would be counteracted by its supposed hardness and springiness; but as regards the portion at present turned out I can testify that this supposition is quite a fallacy—it lies as dead as a hemp rope in the coil, and has no spring whatever in it.

I trust the above account will be satisfactory to yourself, and our directors, and other friends in America. They may be assured of one thing, without any doubt—namely, that we shall have a better cable than has ever hitherto been produced; and, if the opinion of those who should be most competent to judge may be relied on, the Great Eastern is the proper ship for the work.

In the belief, therefore, that every known precaution and appliance in securing success has been and will be made available, we may more safely commit the great and hoped for final result of our noble undertaking to the protection of that Mightiest Arm, to which even the stormiest waves of the Atlantic are obedient.

I am, my dear sir, very truly yours,

GEO. SAWARD,
Secretary and General Superintendent.

THE ATLANTIC CABLE.

The first attempt to establish telegraphic communication between the old and new world proved beyond a doubt the practicability of laying a cable across the Atlantic. But its success, from a Telegraphic point of view, is still a matter which will admit of much speculation. Many reasons have been given to show that it will never attain that state of perfection required for practical benefits. While others maintain that the bed of the Atlantic, being of such an uneven character, the cable would, in a manner, rest upon mountain peaks, and thus by its own weight, or from the force of under-currents, soon be broken to pieces. The subjoined paragraph, clipped from the Philadelphia "Ledger" of the 5th ult., will go far in relieving the minds of skeptics in this regard:

"The Atlantic Cable, which is to be laid between England and America, was recently tested to try its strength and ductility. A given length was taken, suspended, and gradually weighted until it broke, the elongations succeeding each additional weighting being duly registered. The cable selected bore the weight of six and three-fifths tons. The case, the spiral wires involving it, the insulating body, the jute yarn, and each separate strand of the cable were similarly tested. It was found from those experiments that the more the fibres of wire were brought into a state of tension, the greater became its strength, and that as an insulator, gutta percha, although not so perfect as India rubber, is far more durable, and that the cable, as now manufactured, will be able to bear a strain four times its own weight when laid at the bottom of the Atlantic."

M. D. B.

Electro-Magnet Induction Machine for Telegraphing.

A new induction machine is now to be seen in operation, which produces a constant stream of electricity, and can be made to produce it of any tension or quantity that may be required. These are valuable properties, which doubtless will be appreciated by all those who are obliged to use galvanic batteries of high tension. Many attempts have been made to use induced electricity for telegraphy, but as these attempts have been generally made with machines similar to Rhumkorf's induction coil, they have failed, for the following reasons: The electricity is in impulses, and alternately in reverse directions. It is in too small quantity, and too great tension, so much so, that it is said that Mr. Whitehouse's five-feet coil destroyed the Atlantic Cable; but the authorities are not agreed on the point. However, it is certain that such machines are not suitable for telegraphy generally, even if one impulse be thrown out, so that all the impulses which are taken may be in the same direction; for there is then no approach to a battery current. This has been done, but in all cases the most suitable impulse has been rejected, namely, the slow one, or making impulse, and the breaking impulse taken, which is of greater tension but shorter duration; of course, the absolute quantity of force in each is the same, and it will be clear that the former, approaching more nearly to a current, would be most suitable. In some cases, the two reverse impulses are used; but these can only be used with one telegraphing arrangement, and that a slow one.

What has been wanted, and which is now obtained, is as near an approach to a battery current as may be, and of any tension required, without multiplying the number of battery cells used.

Any machine to be of real use, must not only possess these properties, but must be perfectly self-acting. The machine here spoken of possesses all these properties. Its current is perfectly continuous for all practicable purposes, for no intermittence can be detected. It holds the needle perfectly steady, rings an electro-magnet bell, produces electrolysis, and comport itself, in every other way, like a battery current; even producing no spark, unless the poles be brought into absolute contact. The electricity which is used to excite the electro-magnets in the coils is, at the same time, made use of as magnetism in the electro-magnets to drive the battery break, and commutator; so that the motive power, which makes this machine self-acting, is obtained without cost, because to produce induction the magnets in the coils must necessarily be excited, whether the magnetism so induced be otherwise used, or not.

Two series of induction coils are used in this machine, which are so arranged that one series is being magnetized nearly at the same time that the magnetism is subsiding in the other, so that the two consequent induced impulses as it were overlap each other; and, though these induced impulses are in opposite directions, the spools are so arranged that in the general induction circuit they flow in the same direction, thus making a compound impulse of longer duration, composed of the two opposite inductions, and so blending the more intense with the less, the result being a sort of undulation of force. These compound impulses flow in opposite directions, and to make them a continuous flow they are taken up by a commutator, which reverses its contacts as they reverse, and thus turns them all in one direction, producing a slightly undulating but continuous flow. This seems to be the form of motion that all known forces take. The machine appears to be made for quantity, the inner coils being of No. 12 wire, and the outer of No. 18. Some electricians, who have examined it, have expressed a fear that it might injure the insulation of gutta perched wire, as this fault has been attributed to ordinary induction coils. Of course, this objection does not apply to this machine any more than to an ordinary battery; for, to whatever purpose it may be applied, its tension and quantity will be adjusted to the tension and quantity of the number of battery cells ordinarily required to perform that work; nevertheless, the machine is being subjected to continuous tests, to put the thing beyond doubt. A gutta perched wire is punctured, and then immersed in water, and the leakage tested, then the full current sent through it for hours, but as yet no perceptible variation has been noticed.—*Chemical News*.

ORIGIN OF THE ELECTRIC TELEGRAPH.

From the Telegraphic Journal.

"Powerful as this extraordinary agent has become, and incalculably useful as its operation is now found to be, it would appear that the principle of the electric telegraph and its modus operandi, almost identically as at present, were known and described upwards of a century ago. On the occasion of a late visit to Robert Baird, Esq., of Auchmedden, at his residence, Cadden house, near Glasgow, my attention was called by that gentleman to a letter initiated 'C. M.' dated Renfrew, Feb. 15, 1653, and published that year in the *Scots' Magazine*, vol. xv., page 78,

where the writer not only suggests electricity as a medium for conveying messages and signals, but details with singular minuteness the method of opening and maintaining lingual communication between remote points, a method which, with only a few improvements, has now been so eminently successful. It is usual to attribute this wonderful discovery to the united labors of Mr. W. F. Cook and Professor Wheatstone; but has any one acknowledged the contribution of 'C. M.', and can any of the learned correspondents of *Notes and Queries* inform me who he was? —*Glasgow.*

"INQUIREND." —

The Atlantic Telegraph.

A NEW PLAN FOR LAYING THE NEW CABLE.

At the meeting of the British Association for the Advancement of Science, held in Bath, on the 16th of September, the question of the best form of cable, for use in submarine telegraphy, and of the best means of laying it at great depths was again brought before the consideration of the section, by Captain Selwyn, who advocated the use of straight, instead of spiral, wires, and the use of a particular compound as an insulator, in preference to either gutta percha or india rubber. He proposed that the cable, as it was manufactured, should be wound upon a wheel of about fifty or sixty feet diameter and proportionate length, and as soon as the whole was coiled upon it, it should be taken in tow by a vessel, and allowed to run off. The strain, occasioned by coiling the cable round a cylinder of such great diameter, would be inappreciable, and any strain, which might arise from sudden jerks, such as were likely to occur in paying the cable out from the stern of the ship, would be obviated as the cylinder would roll not pitch.

The reading of this paper gave rise to a long and animated discussion, in which Captain Gaiton, Mr. Fairburn, Mr. Webster, Admiral Belcher, Captain Whateley, Mr. Hawkshaw and Mr. Scott Russell took part.

Some of those gentlemen considered the proposal as chimerical; that the size of the cylinder, and its power when in rotation, would control the motion of the ship instead of the ship controlling it. Others highly approved it as an elegant and ingenious contrivance, and fairly entitled to a trial.—*London Times*.

THE ATLANTIC CABLE.

Perhaps not the least important feature in connection with the Atlantic Telegraph Company is the proposed employment of the Great Eastern, with its ample accommodation, in laying down the cable. The adaptability of the great ship for the conveyance and submersion of the deep sea telegraphic cables has long been recognized by nautical men; one great advantage being that the whole cable can be conveniently stowed in water tanks between her ample decks, and we can only reiterate our firm opinion as to the ultimate success of deep-sea telegraphy.

To enable our readers to compare the cable submerged between Ireland and Newfoundland by the Atlantic Telegraph Company in 1858, and the cable now being manufactured for the same Company by Messrs. Glass, Elliot, & Co., we print the following details.

OLD ATLANTIC CABLE, 1858.

Conductor—A copper strand consisting of seven wires (six laid round one), and weighing 107 lbs. per nautical mile.

Insulator—Gutta-percha laid on in three coverings, and weighing 261 lbs. per knot.

External Protection—Eighteen strands of charcoal iron wire, each strand composed of seven wires (six laid round one), laid spirally round the core, which latter was previously padded with a serving of hemp saturated with a tar mixture. The separate wires were each 22½ gauge, the strand complete was No. 14 gauge.

Weight in Air—20 cwt. per nautical mile.

Weight in Water—13.4 cwt. per nautical mile, or equal to 4.85 times its weight in water per knot,—that is to say, it would bear its own weight in a little less than five miles depth of water.

Breaking Strain—8 tons 5 cwt.

Deepest Water to be Encountered—2,400 fathoms or less than two and a half nautical miles in depth.

The Contract Strain was equal to 4.85 times its weight per nautical mile in the water.

One Knot, being in fathoms— $1,014 \times 4 = \frac{4,056}{348} = 11.179$ —2.05 times the strength requisite for the deepest water.

NEW ATLANTIC CABLE, 1864.

Conductor—Copper strand, consisting of seven wires (six laid round one), and weighing 300 lbs. per nautical mile, embedded for solidity in Chatterton's compound. Gauge of single wire .048—ordinary 18 gauge. Gauge of strand .144—ordinary No. 10 gauge.

Insulation—Gutta-percha, four layers of which are laid alternately with four thin layers of Chatterton's compound. The weight of the entire insulation, 400 lbs. per nautical mile. Diameter of core, .464; circumference of core, 1.392.

External Protection—Ten solid wires of the gauge .095 (No. 13 gauge), drawn from Webster & Horafall's homogeneous iron, each wire surrounded separately with five strands of Manila yarn saturated with a preservative compound, and the whole laid spirally around the core, which latter is padded with ordinary hemp saturated with preservative mixture.

Weight in Air—35 cwt. 3 qrs. per nautical mile.

Weight in Water—14 cwt. per nautical mile, or equal to eleven times its weight in water per knot,—that is to say, it will bear its own weight in eleven miles depth of water.

Breaking Strain—7 tons 15 cwt.

Deepest Water to be encountered—2,400 fathoms or less than two and a half nautical miles in depth.

The Contract Strain is equal to eleven times its weight per nautical mile in water.

One Knot, being in fathoms— $1,014 \times 11 = \frac{11,154}{348} = 32.179$ —4.64 times the strength requisite for the deepest water.—*Telegraphic Journal*.

DISTRICT DIRECTORS will greatly lessen our labors, and confer a favor, by sending the proceedings of their meetings early, and written in the same order in which they are printed in *The Telegrapher*.—ED.

THE TELEGRAPHER.

MEETING OF THE MEMBERS OF THE NATIONAL TELEGRAPHIC UNION.—The monthly meeting of the Louisville District of the National Telegraphic Union was held in the office of the Western Union Telegraph Company, Saturday last. The principal object of the meeting was to hear the report of their delegate, who represented the district at the National Telegraphic Convention, held in the city of Philadelphia during the week beginning Monday, the 5th instant.

The report of the delegate showed that the organization was prospering finely in point of numbers and influence. Thirty delegates, representing five hundred operators, were present at the convention, and during the session transacted much important business, perfecting the constitution and by-laws, which were adopted last year, at the first convention, which was held in New York city.

The National Telegraphic Union is organized for the advancement of the interests, and elevating the standing of the profession, and necessarily benefitting the different companies by supplying a competent class of young men to perform the responsible duties of the profession. A fund is provided to assist the operators in case of sickness, or while temporarily out of employment.

The Philadelphia district received their brother operators in the most hospitable manner, giving a grand dinner to the members of the convention at St. James' Hall.

A monthly journal called "The Telegrapher" will be published in New York, the first number to be issued the last week of the present month. It will be devoted to the dissemination of information pertaining to telegraphy and telegraphers in general, and to matters relating to the Union.

The district organized in this city, though formed but a short time, is in a very flourishing condition. All operators should join it.—*Louisville Democrat, Sept. 27th,*

We acknowledge a slip of the pen yesterday, when we referred to the report of Hood's movements, and hoped "the silly telegraphic operators would not be continually announcing that this, that, or the other rebel army is sure to be captured or annihilated." If, instead of the italicised words, we had said "silly newspaper reporters," we should have hit the right nail on the head, and laid the blame where it properly belongs. "Telegraphic operators" have, or should have, nothing whatever to do with the reports transmitted to the press, for publication, beyond the mere mechanical labor of manipulating the key to the machine. It matters not to them whether the reports are true or false; they must be sent as written. The printers and pressmen who aid in giving circulation to the reports might as consistently be held to accountability as the operators. While we make all amends to the gentlemen who operate the telegraph, we take the opportunity of correcting a very general misapprehension in regard to the responsibility for the various sensational reports and frequent contradictions which are sent over the wires in reference to army operations. The "official bulletins" of Secretary Stanton are the only messages which have not the paternity of the Associated Press, or the special correspondents of newspapers. The telegraph line and operators are no more responsible than are the locomotives and engineers, by whose agency the news goes through the mails.

—*Louisville Journal.*

The Telegraphic Journal published in London, in its issue of 22d ult., takes from the columns of *The Telegrapher* the notice of the departure of the first division of the Russian Telegraph expedition, and then gives this paper a very handsome notice, which we are prevented reprinting for our readers, having very unfortunately lost our copy of the *Journal*.

In its issue of the 29th ult., the *Telegraphic Journal* prints President Smith's Annual Report, in full prefaced by the following:

"We have, on several occasions, adverted to the importance of union, and, in one instance, specially advised the establishment of an institute for telegraphers in England. Nothing has been done, however, towards realizing our suggestions; but perhaps, when the advantages which result from such associations are shown, steps will be taken to give effect to our recommendations. Towards the close of the last year an institution was founded in America, called the National Telegraphic Union. In the month of September last, a convention of delegates from many of the States was held in Philadelphia, under the auspices of the Union, presided over by Mr. J. G. Smith. The address of the President on this occasion contains some valuable information concerning the operations of the Union; and will afford a few hints to our readers who may be disposed to assist in the establishment of an institute for telegraphers."

At the conclusion of the report, the *Journal* adds to its former compliment, the following:

"In compliance with the suggestion of the president, a journal in the interest of the Union has been established. *The Telegrapher*, for that is its name, is a monthly of a decidedly business character, promising to become a thorough representative of telegraphers, and the art with which they are identified. To the columns of this periodical we are indebted for the address of the president of the Union."

We print this to show our readers that *The Telegrapher* is not only welcomed at home, but well received and kindly treated abroad.

The Editors of the *Journal* have our warm thanks, not only for the generous manner in which they received *The Telegrapher*, but for the handsome compliment to ourselves.

The Telegraphic Journal contains sixteen pages, is published weekly, at 4 & 5 Suffolk Lane, Cannon Street, E. C., London, at 17s. 4d. (postage to be added) per year; is a first class paper, and is filled with enough telegraphic items to satisfy the most exacting reader. We commend it to the consideration of our readers.

It seems hardly necessary to call the attention of the readers of *The Telegrapher* to the *Scientific American*, as its name has become a household word in the homes of Americans. Any one desiring to obtain the reading of a scientific journal will do well to subscribe for the above-mentioned paper. Munn & Co., Park row, are the publishers.

We have to chronicle a defection from the ranks of telegraphic bachelors, in the person of Mr. James Merrihew, who has left our small and select circle, and united himself for "better or worse" to a lady of this city. We tender our congratulations, and hope it will be all better and no worse.

We understand the "poor young man" behaved like a hero under the trying circumstances, and launched forth upon that terrible sea of matrimony, regardless of the many warnings it has given to rash young men, committing themselves to its bosom, and apparently forgetful of the shoals and breakers therein.

May favoring gales speed the bark of the young couple on their voyage of life.

IMPROVED MORSE ALPHABET, ADOPTED BY THE COLLINS' OVERLAND TELEGRAPH.

LETTERS.			
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PUNCTUATION, &c.

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THE ANGLO-INDIAN TELEGRAPH.—LONDON, Oct. 26.—The Persian Gulf telegraph cable has been repaired to Teheran, and messages have come through to Bombay in twelve hours. The extension from Teheran to Bagdad will be finished next month.

A CORRESPONDENT of the New Orleans "Times" writing from Fort Gaines, Sept. 28th, says: "There is now a fine submarine telegraph cable working between this place and Fort Morgan. It is a good thing, as it lessens the duty of the signal corps, who, until recently, have had a hard time of it."

Copies of the Constitution and Ordinances of Nevada were sent to the President by telegraph, at a cost of over four thousand dollars.

One of our poets, who has been rather slack of work lately, and whose eye has been rolling in a frenzy, to very little purpose, for the last fortnight, has furnished us with an idea on the subject of submarine telegraphy. He says "It is like using the lightning conductor for a steel pen, and the ocean for an inkstand." He might have added, that the cliffs furnish the blotting-pad, the shore supplies the sand, and the whole world the sheet of paper to write upon.—[Punch].

A man who lives almost exclusively upon *tick*.—The Telegraph operator.

CRINOLINE has been put to a new use in Australia. At Wagga Wagga the telegraph wire broke, and there being no other suitable material at hand for repairing it, a lady kindly lent her crinoline, which, being dissected, and used to tie electric wire together, enabled the operators to use the line.—*Telegraphic Journal*.

NEW OFFICES OPENED DURING THE QUARTER ENDING NOVEMBER, 1864:

By American Company—Connecticut River, Conn. Dalton, Mass. Medway, Mass. Copake, N. Y. Summit House, N. H. Chambers Street, N. Y. Halecock, Va. Monrovia, Ma. By United States Company: Clyde, N. Y.

OBITUARY.

An operator, named Berryhill, from St. Louis, died very suddenly in Boston, on Sunday evening, 18th Inst., leaving a wife and child utterly destitute of money or friends.

The Boston operators sent his remains to St. Louis, and gave the widow over one hundred dollars. We also learn that, while en route home, Mrs. B. received donations from the operators at Buffalo and Cleveland, amounting to over sixty dollars, and passes over the railroads to St. Louis.

This action on the part of the operators redounds to their honor, and reflects great credit upon them for their generosity and brotherly kindness.

We understand Mr. Berryhill was not a member of the National Telegraphic Union.

The Portland operators also have subscribed twenty-one dollars to the above object.

THE FUNERAL OF MR. J. McCRICKETT, late Superintendent of the United States military Railroads at Alexandria, Va., took place from St. Patrick's Chapel, Detroit, Michigan, Oct. 11th.

In the untimely death of this young man, the country has lost a valued and faithful officer. He had not been educated to the career of arms. His talents were of a different order, more calculated to shine during a nation's prosperity than in the exciting scenes of war. He was a thoroughly educated Telegraph and Railroad man: one familiar with the duties and responsibilities which are inseparably connected with that great commercial necessity of the age, and powerful auxiliary in war, the railway.

In the personal discharge of his duty he met his death. He was killed by a train, which was thrown down a steep embankment by guerrillas, on the 10th of October. His uniform gentlemanly deportment gained him the respect and regard of all who knew him, and the service has lost in him a gallant and honest public servant.

Mr. Metcalf was a native of Detroit, Michigan, where his afflicted parents now reside. When quite young he entered the service of the Grand Trunk Railway as a Telegraph operator, where he soon won the confidence of his superiors, and rapid promotion. At the time of his death he was twenty-three years of age, and his name is now numbered among those gallant youths, dead to their country, lost to their friends, but whose memory will live with the honored dead.

QUOTATIONS OF TELEGRAPH STOCK.

CORRECTED BY JOHN HORNER, CASHIER, AMERICAN TELEGRAPH OFFICE, NEW YORK.

Western Union, . . .	\$100 shares	par.
American	" " " " "	170
Russian Extension	" " " " "	35 @ 87
United States	" " " " "	95
Ill. & Miss.	" " " " "	par.
East India	\$50 " " " " "	"
Montreal,	\$100 " " " " "	181 @ 182 gold.
Vt. and Boston,	50 " " " " "	25
Nova Scotia,	20 " " " " "	16 gold.
Troy & Canada Junet. 50	" " " " "	25
Maine,	50 " " " " "	70

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TILLOTSON & CO.

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Galvanized and plain Wire, and Insulators of all patterns, furnished at short notice.

1. REGISTERS, Tillotson & Co's.	35. SILK-COVERED MAGNET WIRE.
2. " Other Manufacturers'.	36. BLUE VITRIOL, Manufactured expressly for Telegraph purposes.
3. RELAYS, Tillotson & Co's.	37. BATTERY BRUSHES.
4. " Other Manufacturers'.	38. INSULATORS, of any desired pattern.
5. SOUNDERS, all patterns.	39. BRACKETS.
6. KEYS, " "	40. HOOKS.
7. GROUND SWITCHES.	41. SPIKES.
8. CUT-OUTS.	42. REGISTER CORDS.
9. REGISTER WEIGHTS.	43. SHEET COPPER.
10. WIRE, Annealed, of the very best quality, for Telegraph Lines.	44. SHEET BRASS.
11. " Galvanized Telegraphic Lines.	45. CHAMOIS SKINS.
12. " Copper of all sizes.	46. TELEGRAPH CABLE, all sizes and patterns.
13. " Brass, " "	47. FUNNELS, Gutta Percha, for acid.
14. ACIDS, <i>Nitric</i> .	48. " Glass.
15. " Sulphuric.	49. RELAY SPRINGS.
16. FLUID, for Coke Battery.	50. WATCH OIL.
17. TUMBLERS, Main Battery.	51. PLATINA STANDARDS.
18. " Local "	52. REPAIR TOOLS, Shovels.
19. POROUS CUPS, Main "	53. " " Spoons.
20. " Local "	54. " " Crowbars.
21. ZINCS, Main "	55. " " Hatchets.
22. " Local "	56. " " Climbers and Straps.
23. COPPERS, " "	57. " " Files.
24. PLATINUM, Sheet.	58. " " Vises.
25. " Wire.	59. " " Plyers.
26. CARBONS.	60. " " Brass Pulleys.
27. GROVE BATTERY, Complete.	61. " " Branding Irons.
28. COKE " "	62. " " Post-hole Augurs.
29. DANIELL'S " "	63. OFFICE FURNITURE, Desks.
30. QUICKSILVER.	64. " " Chairs, &c.
31. REGISTER PAPER.	65. STATIONERY, Message Heads.
32. GUTTA PERCHA OFFICE WIRE.	66. " Envelopes, Books and Blanks of every description.
33. BRIDGE'S PAT. ELECTRIC CORD for Offices.	67. GALVONOMETERS.
34. VARNISHED COTTON-COVERED WIRE.	

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INSULATED WITH PURE GUTTA PERCHA,

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THE TELEGRAPHER,

Devoted principally to the Interests of the National Telegraphic Union, and to Telegraphers and Telegraphing in general,

And will contain, besides all matters pertaining to the Union, everything of Telegraphic interest to Telegraphers. Correspondence, Extracts from Works on Telegraphy; Articles upon Electricity and Magnetism; Statistics; Improvements in Telegraphing; Telegraph Instruments and Materials; Promotions, Removals, Resignations, Marriages and Deaths of Telegraphers.

Subscriptions will be received for six, or nine months, or one year, at Two Dollars per annum, *payable in advance*. Any person sending us the yearly subscriptions of six persons, outside the Union, will be furnished a copy for one year. Single copies, 17 cents.

A limited number of Advertisements of Dealers in Telegraph Materials will be received.

Number Seven will be issued on Monday, March 27th, 1865.

For particulars, address the Editor, P. O. Box 3,393, New York.

THE TELEGRAPHER.

"Canst thou send lightnings, that they may go and
say unto thee, Here we are?"—Job xxxviii, 8.

N. T. U.

"I'll put a girdle around about the earth in forty
minutes."—Shakespeare.

Vol. I.

New York, Monday, March 27, 1865.

No. 7.

THE TELEGRAPHIC REPEATER.

(Continued.)

CLARK'S REPEATER.—APPLICATION OF THE EXTRA LOCAL CIRCUIT.—THE EUROPEAN REPEATER.

DURING the year 1859, a repeater was invented by James J. Clark, a well-known manufacturer of Telegraphic instruments, in the city of Philadelphia. Mr. Clark made use of an extra local battery and magnet, which was applied to each side of the apparatus, effecting the same result as the mechanical movement of Farmer and Woodman,—that of preventing the breaking of the transmitting circuit by the action of the "repeating points" on the opposite side of the instrument.

The principle of this repeater is extremely simple, and will be easily understood by an inspection of the diagram.

The western main circuit enters at *W*, passing through the relay magnet *M*, thence to the flat spring *f*; screw point *S*' and battery or ground at *G*. The eastern main line *E*, is connected in the same manner, through the corresponding parts on the opposite side of the instrument. The flat springs *f*, *f*' are insulated from the sounder levers, by small pieces of hard rubber or ivory.

The arrangements of the ordinary local circuits need no explanation, as it differs in no respect from that usually employed. The wires are omitted in the drawing to avoid confusion and multiplicity of lines. In order to be more easily understood we shall term these the "regular local circuits" to distinguish them from the "extra locals."

The levers *a*, *a*' of the relay magnets *M*, *M*' are prolonged a short distance below their fulcrums, and an extra local magnet *L*, with its armature, is placed at the lower end of each lever, but upon its opposite side. Thus it will be seen that the attractive face either of the relay magnet *M*, or the extra local magnet *L*, when exerted upon the lever, will have the effect of closing the regular local circuit connected therewith.

By tracing the circuit of the "extra local" *B*, it will be seen that it is so arranged that the closing of the sounder *R*, cuts off the electric current from the magnet *L*' by forming a shorter connection through *l* and *p*'. The other extra local circuit is in all respects similar.

Both main circuits being supposed to be closed, the action of the repeater may be explained as follows:

Imagine the circuit of the western line to be broken. The action of the relay *M* will cause the sounder lever *l* to break the western extra local circuit at *P*, which will then flow through the magnet *L*'. Instantly afterwards the lever *l* also breaks the eastern main circuit by lifting the spring *f* from the screw-point *S*. But the armature *a* of the eastern relay, is still retained in its position by the attraction of the extra local magnet *L*. The elasticity of the spring *f* prevents the breaking of the main circuit through *M*' until after the extra local magnet *L*' is brought into action.

Now, let the west close again. The eastern main circuit is closed by the flat spring *f*, and immediately afterwards the lever *l* comes in contact with the point *P*, cutting off the extra local current from its magnet *L*'. Thus it will be seen that while one side of the apparatus is working, the other side will remain quiet, and vice-versa.

Mr. Clark has constructed this repeater in a number of different forms, although the principle is the same in all of them. In the earlier ones the extra local helices surrounded those of the relay, and a separate local magnet was thus dispensed with. In another form the extra local magnet was placed above the relay magnet, and upon the same side of the lever instead of below it, as in the drawing.

This repeater was first used on the Baltimore and Ohio Railway Telegraph line, at Cumberland, Md., sometime during the summer or autumn of 1859. A patent was granted for it, on the 24th of July, 1860. It has been employed principally upon the lines of the Atlantic and Ohio Telegraph Company, between New York, Philadelphia, and Pittsburgh, which have recently been consolidated with the Western Union lines.

A repeater of very simple construction is used upon the European telegraph lines, a description of which may not be uninteresting to the readers of *The Telegrapher*.

The system upon which the European lines are worked is essentially different from that employed in this country. Every office upon the line is provided with a main battery, the negative or zinc pole of which is permanently connected with the ground wire. The line wire passes through the relay magnet only at each way office, and not through the key or battery. At the terminal station it first passes through the relay, and from thence to the lever of the key. This key differs considerably from that used on the American Morse lines. It has no "circuit-closer," but is provided with a second platina point at the rear end of the lever, which strikes upon another point connected directly with the ground wire. The platinum point under the front part of the key connects with the positive pole of the main battery. The way stations are similarly arranged, with the addition of a switch, by means of which they can place themselves in connection with the main line, either east or west, at pleasure, as may be required. Thus it will be seen that there is no electric current upon the wire except when it is in actual operation.

The repeater used on these lines consists, simply of two relay magnets, the armature levers of which vibrate between two "set-screws" in the usual manner. The back screws, however, are provided with platina points instead of insulated ones, as in ordinary relays. The eastern main circuit passes first to the armature lever of the western relay, thence through the back set-screw to the helices of the eastern relay, and thence to the ground. In like manner, the western circuit passes through the eastern relay lever and western magnet, to the ground. The front set-screws of both relays are connected to the positive pole of the main battery.

Now, if the eastern circuit be closed, the eastern relay will attract its armature, and thus place the western line in connection with the main battery, but not through the western relay. When the east breaks again, the western line is immediately placed in connection with the ground as before, and everything resumes its original position. If the receiving operator on the western circuit wishes to interrupt the transmitter, he presses his key down, thus throwing on a "reversed battery." The next time the east breaks, the battery reverses the repeater, and consequently the battery connected with it, which is at once perceived by the eastern operator the next time he closes his key.

We are unable to give an illustration of this repeater in the present number, but with the aid of the above description, the reader can easily draw a figure for himself which will enable him to understand its action.

This repeater is also used in this country upon the electro-chemical or "Bain" lines, between Boston and Montreal, which work with "open circuits" like the European lines.

We have not ascertained with certainty who was the inventor of this form of repeater, nor where it was first employed. The credit of it, however, is probably due to Mr. Alexander Bain, formerly of Edinburgh, Scotland, but now, we believe, a resident of this country.

(To be Continued.)

THE TELEGRAPH IN MOROCCO.—The Paris *Patris* states that the Emperor of Morocco has determined on erecting electric telegraphs in his empire. The first line will connect the cities of Fez, Meknès, and Morocco with Tangier. To understand the importance of this innovation, our readers must know that the Emperor, who has hitherto done nothing without the advice of his astrologers, consulted them during his stay at Rabat, and they replied, after a whole night's study, that the electric telegraph was an "infernal invention," which would bring calamities on the Sovereign and his dynasty. The Emperor, however, disregarded their gloomy predictions, and has decided, not only that the telegraph shall be established in his empire, but likewise that *any man who may dare to destroy the apparatus or wires shall be beheaded*.

ELECTRO MAGNETS.

CONTRIBUTED BY PROFESSOR D. E. HUGHES.

Being desirous of constructing the best possible electro magnet for telegraphic purposes, and several apparently contradictory results having been obtained, I was induced to investigate very closely the known and unknown laws regarding the subject. From the commencement of these experiments the necessity was felt of using an electro chronograph, which would give the correct measure of force obtained on the electro magnet, with the correct division of time necessary for the current to produce its maximum effect upon the iron cores of the electro magnet.

Upon reflection, I determined upon using my printing telegraph instrument, which, with some slight modifications for this purpose, most admirably suited the purpose desired. By the aid of this instrument, the time necessary for an electro magnet to pass from its minimum to its maximum of force could be accurately obtained, showing also the amount of force obtained during any fraction of this time. The curves of force so obtained show that for all practical purposes the maximum of force would be obtained by a contract of 1-16th of a second, and that this increase of force, if divided in four divisions of time, would be as 8, 4, 2, 1. Divisions of time equaling 1-1000th of a second of time could be accurately obtained, and in the same time a record made of variations of electro-magnetic force from one gramme up to 200 grammes. These results are perfectly constant, no matter what form or size of electro magnets or armature, the only difference in the increase of the curve.

With ten or three elements, with or without external resistance, the time of passing from its minimum to its maximum was invariably the same. For all practical purposes the maximum of effect would be obtained by a length of contract which would equal 1-28th part of a second, and if we allow the same time for discharging the electro magnet, fourteen currents per second can be sent through an electro magnet for telegraphic purposes, producing the maximum of effect. The retardation caused by the induction of a given line should also be deducted from this speed, allowing probably, upon a well-constructed air line, of a speed with maximum effect of ten contracts per second.

The first step in this investigation was to find what amount of resistance of wire on the electro magnet would produce the maximum effect. For this purpose 500 kilometres of line resistance were chosen, having an average loss of two-thirds of the actual current to earth. This loss could be made greater or smaller in order to represent the actual working of an air line. After numerous experiments it was found that 120 kilometres' resistance, or 60 on each coil, would give the best average results, taking into consideration all changes that an actual telegraph line has to undergo during different periods of time. The numerous curves obtained from these experiments would be too long to publish here, but we may state that the highest average curves obtained through different losses were always obtained with the coils having sixty kilometres resistance each.

The next step in this inquiry was to find the proper form and size of the iron cores in the coils of the electro magnet, and from the commencement two very important qualities manifested themselves in different bars of iron submitted to trial. It was found that different bars of iron conducted the magnetism produced in a greater or less manner, and that the total magnetic result would be directly as the conducting power of the bar of iron. Thus, suppose we take bars of soft iron and steel equal in length and diameter, we shall find by placing a natural magnet at one end of the bar, and then observing how much magnetism is conducted to the free end, that the iron bar will support eight times more weight than the steel placed in the same circumstances. Thus we can easily determine the conducting powers of soft iron to be eight times that of tempered steel, and when placed in the electrical coils, the steel bar required eight times the amount of current to produce the same amount of magnetic force at its free poles, thus showing how important it is to choose the softest iron. The annealing of an ordinary iron bar produced eighteen per cent. difference in favor of the annealed bar. All parts, such as the armature, &c., should be perfectly annealed, as the smallest piece of hard iron reduces the results sensibly. Care should also be taken that the fibres of the iron are longitudinally, reducing the results sensibly if they are transversely. For this reason, a drawn iron tube or wire had been generally found superior for the cores; the greatest difference observed was from ten to fifteen per cent.

Another very important quality of iron, and which we believe has not yet been noticed in its connection with electro magnetism, is the power of absorption of the magnetism in iron. This absorption of the magnetism or, in other words, that in which the magnetism becomes latent, is very remarkable in different species of iron, and with the same iron the amount absorbed is directly as the mass. If we lay upon a bar magnet a piece of iron, we shall find that the magnet will support less weight than before, and the difference will be exactly as the amount absorbed by the piece of iron on the magnet. If we now place a piece of hard steel of the same size we shall find that the difference in their absorbing powers is not more than one-sixth, and that the iron has absorbed but one-sixth more than the tempered steel, whilst its conducting powers are eight times. Coils were constructed having for its core a thin tube of iron one centimetre in diameter, six centimetres in length, and one quarter millimetre in thickness. They were so arranged that tubes of different thicknesses of iron core proved completely that the maximum of effect was arrived at when the core possessed a thickness of one and a half millimetres.

After this point had been reached, the iron having already conducted all the magnetism generated to the poles, the adding of iron produces a diminished effect, caused by the absorption of the maximum magnetism already generated, and thus a certain quantity which was conveyed to the poles became absorbed in the unnecessary iron which was added. This experiment was repeated in a variety of ways, with cores of fine iron wire, with solid bars, and with large and small tubes, proving that where the maximum of conducting power with a given force had been obtained by a certain amount of iron, any additional amount would be prejudicial to the result, a certain portion of the magnetism induced then becoming absorbed in the unnecessary iron. As regards the length of coils and bars, the maximum of effect was obtained in every case with six times in length the diameter of the bar.

Suppose a bar of iron several metres in length and one centimetre in diameter, had separate coils of the same resistance during its whole length with the same power on each coil, no greater effect would arrive at the poles than one coil six cen-

timetres long, simply from the resistance to conduction of the magnetism generated. Thus, it is of the utmost importance, before choosing any iron for the cores of an electro magnet, to test it for conduction, taking hard tempered cast steel as a standard. With this standard, bars of good iron, same diameter, should, at eight times the length of tempered steel support the same weight. Tubes of iron were found the best adapted to a telegraphic electro magnet. Whilst having a sufficiently large diameter near the electrical coils, the amount of iron could be regulated so as to have its maximum of conduction with its minimum of absorption.

The results of these experiments show that the amount, as well as the quality, of iron, in a given electro magnet, to be used with a certain resistance, should be carefully studied; and for an electro magnet giving the highest average results through 300 to 800 kilometres resistance, it was found that the total weight of iron in cores connecting bar and armature should be 80 grammes. Experiments were then made to find the best form of armature which would utilize the maximum of effect produced at the poles of the electro magnet. The same phenomena of conduction and absorption were observed in the different armatures. If the armature was too thin, the resistance to conduction was too great. If too large, the magnetism induced became latent, and a proportion was consequently lost to all practical effect. It has long been known that the true poles of a magnet are situated at a short distance from the extremity; but no attempt has yet been made of putting this knowledge to practical use in the construction and working of electro magnets.

Projections or pole pieces were now added to the electro magnet, in order to obtain a coincidence of the true poles of the armature with those of the projections, and the result of these experiments were more successful. The force increasing rapidly as the true poles approached each other, and diminished when this coincidence was past. The armature thus shortened, became exceedingly sensitive and rapid in its action, working with constant effect, and through a much larger variation of current than possible with the ordinary arrangements of armatures. The sensitiveness to feeble currents of the electro magnet thus arranged was very remarkable, one cell being amply sufficient to work the printing telegraph instrument at its ordinary speed of 120 revolutions of the type-wheel, sending five letters per revolution, or 600 letters a minute through a resistance of 1,000 kilometres, with a loss to earth of two-thirds of total current.

With simple resistance, a small piece of zinc and copper placed upon the tongue would work the magnet perfect and regular at 600 contracts per minute, through 1,000 kilometres' resistance. On a resistance of 300 kilometres, a piece of gold coin and silver in water, would produce sufficient current to produce the same effects. Experiments show that upon a given resistance and battery, and with so great a loss to earth, that the ordinary arrangement of armature, as in the Morse instrument, or a very sensitive galvanometer, could not indicate the slightest passage of current; by simply changing armatures, the instrument would most perfectly, showing strong indications of a current of sufficient strength to be of practical utility, even when the battery power was again reduced one-half. Thus, by care in constructing the electro magnets, and adjusting the true poles of the armatures, a telegraphic line could be easily worked, when the current, by loss on line had become far too feeble to make the arrangements heretofore used.

The practical results here mentioned were obtained in the application of these principles to my printing telegraph, rendering it thus very sensible to feeble currents, and at the same time allowing the facility of working without adjustment through a range from 1 to 100 elements. The Morse relay magnet, constructed upon those laws, would, in my opinion, be more sensitive than before; but even then, the high results mentioned here could not be obtained, simply from the armature being set upon at a certain distance, using only the minimum of force; whilst in my printing instrument, the armature resting against the poles in a state of rest, the maximum of force is thus always obtained.

The result of these experiments are not theoretical deductions obtained from the laws shown in the foregoing experiments, but those laws are already practically applied in my printing telegraph instrument, as now working upon the most important and longest lines of the telegraphic administration in France.—*Telegraphic Journal.*

NOTE ON THE LIGATURE OF THE TELEGRAPHIC WIRES.

The reuniting of the ends of the wires which form the telegraphic conductors is made and is still made of various ways, which can be divided into two categories: One, in which no solder intervenes, and the other, in which they solder together the ends of the two wires.

The different processes of junction without solder exact that the wires be twisted or distorted in helix of small diameter, and in the deformation which they undergo, a great part of the zinc which covers them, detaches itself. Thus uncovered, the conductors oxidize rapidly, and experience appears to have evinced that their conducting power ceases to be sufficiently perfect. Moreover, these twists which are made with little trouble with wires of little diameter could not be made with great conductors.

The agency of solder alone, by the means of a fusible metal, is insufficient to warrant a solidity of the union, such that it can resist the various strains exercised on the wires; and the experiments of solder, tested on the twists, have evinced that the metallic fluid is but very poorly introduced between the helices of the contortions, and adds but very little to the conductivity. They have thus been led, as soon as they concluded to apply the solder to the contiguous wires, to consolidate the junction by means of a ligature of thin wire enveloping the two ends of the conductor. This ligature very often repeated, should be done perfectly, and until now it has been made by hand with much fatigue and all the irregularity of manual labor.

This practical difficulty, small in appearance, becomes considerable by reason of the number of connections. Its solution made desirable a simple mechanical apparatus that M. Poitou, surveying the telegraphic wires at Tours, has constructed.

This apparatus is composed of a wooden bobbin, on which is previously rolled a certain quantity of ligature wire by means of a little crank, which is then raised. Parallel to this bobbin is a hollow cylinder in iron, open on a part of its surface, between two generators, thus presenting a longitudinal cavity, in which is introduced the two wires to be reunited, in one is a hole of which the extremities are fastened, and in which passes the ligature wire. By the hand are made one or two turns of the ligature wire around the conductors; they are lightly held with both hands, while with the thumb of one hand and the fingers of the other

hand is given to the whole apparatus an evolutionary movement around them. During this movement of the binding-piece, the ligature wire expands and rolls in very compact and regular spires, and the ligature is made and finished in three times less time than would be necessary to do it by hand.

I would finally add, that it is not necessary to previously solder together the two ends of the wire before binding them with the ligature. It suffices to tin them over by passing them successively in the hydrochlorate bath of zinc, and in solder. Since this precaution has been taken, and the ligature is soldered by turn, the melted metal is introduced in the smallest interstices, and forms of the union a small mass perfectly compact and solid.—*Annales Telegraphiques*.

A List of Submarine Telegraph Cables in operation in the United States, Canada, and British Provinces.

(Continued.)

Date when laid.	From	To	No. of Conductors	Length of Cable in Statute Miles & Feet.
1859	Benicia, Cal.	Martinez, Cal.	1	1.
1859	Hall Gate, N. Y.	Across East River, N. Y.	3	1. 720 ft.
1859	Guildford, Ct.	do Conn. River	1	100
1859	New London, Ct.	do do	1	1900
1859	do do	do	1	1200
1859	Terre Haute, Ind.	Across Wabash River, Ind.	2	500
1859	do do	do do	2	500
1859	St. Louis, Mo.	Across Mississippi River.	2	1. 720
1859	do do	do do	2	1. 720
1859	do do	do do	2	1. 720
1860	New York	Hoboken, N. J.	3	2½.
1860	Through Victoria	Bridge, Montreal	3	6.
1860	do	do	3	6.
1860	Quincy, Ill.	Across Mississippi River.	1	1.
1860	Greenport, L. I.	Sag Harbor, L. I.	1	1½.
1860	New York, N. Y.	Hoboken, N. J.	3	2½.
1860	do do	do	3	2½.
1860	do do	do	3	2½.
1860	Sarnia, C. W.	Port Huron, Mich.	8	4500 ft.
1860	Niantic River, Ct.	Across Niantic River	1	125
1860	do do	do Conn. River	1	800
1860	Warren, Mass.	do Fall River, Mass.	1	1500
1861	Perryville, Md.	Havre de Grace, Md.	1	4.
1861	Philadelphia, Pa.	Camden, N. J.	3	3.
1862	Troy, N. Y.	Across Hudson River	7	2100 ft.
1862	Henderson, Ky.	do Ohio River	1	4.
1862	Peducab, Ky.	Illinois Shore, Ohio River	1	3000 ft.
1862	do do	Across Tennessee River	1	1000
1862	St. Louis, Mo.	do Mississippi River	2	6000
1862	Henderson, Ky.	do Ohio River	1	3000
1862	Louisville Ky.	do do do	3	1. 120
1862	Cincinnati, Ohio.	do do do	1	1500
1862	Point Pleasant, Va.	do do do	1	1800
1862	St. Louis, Mo.	do Miss. River	1	8000
1862	Fortress Monroe	Cherrystone	1	28.
1862	do do	Newport News	1	3.
1863	St. Charles, Mo.	St. Louis, Mo.	1	4.
1863	Albany, N. Y.	Hudson River	3	3600 ft.
1863	Cairo, Ill.	Kent'y Shore, Ohio River	1	3500
1863	New Brighton, S. I. N. Y.	Across the Kills, N. Y.	3	1. 3720
1863	Tottenville, N. Y.	do Bay of New York	3	1. 120
1863	Troy, N. Y.	do Hudson River	3	690

(To be Continued.)

PATENT SPECIFICATIONS.

Samuel F. Day, of Ballston Spa, N. Y., Letters Patent No. 42,842. Dated May 24th, 1864. Improvement in Electro-magnetic Telegraphs.

To all whom it may concern:

Be it known that I, Samuel F. Day, of Ballston Spa, in the County of Saratoga, and State of New York, have invented a certain improvement in magnetic telegraphs, and I do hereby declare the following to be a full, clear, and exact description thereof.

This invention relates to a certain improvement in Morse's Electro Magnetic Telegraph, which dispenses with the use of local batteries and relays at the several stations on the line, and consists in the adaptation to, and combination of an indenting register with the main line.

GENERAL DESCRIPTION.—A base or stand to which the several parts of the machine are connected. Two electro magnets placed in a vertical position, and surrounded by a frame or box. A lever with a pin or arm projecting downward from its under side.

This lever is attached to an arbor, and is centered between two thumb screws which terminate in a standard. An adjustable thumb screw with a steel point is attached to that portion of the lever which is represented as being bent downwards in the drawings, the opposite end of the lever terminates between a standard provided with suitable thumb screws for adjusting said lever, according to the strength of battery on the main line. It will be observed that the lever is hung on the standard at about two-thirds its length, taken from the right hand end of said lever. A spiral spring is made to fasten on the arm or pin of the lever, the tension of which is regulated by a thumb-head, around the shaft of which a fine cord is wound, said cord passing through the centre of the standard and connecting with the spiral spring. The object of the spiral spring is to withdraw the armature from the electro magnets, when the circuit is broken.

This apparatus is fitted with clock-work machinery for the purpose of feeding

the paper continuously, similar to other telegraph machines; it consists of two circular plates which form the sides enclosing the interior mechanism. These plates are secured together by three bolts and heads. There is a barrel around which the cord suspending the weight is wound; to this barrel is attached a ratchet wheel. A spur wheel is situated just behind the ratchet wheel. A metal spring which presses against a pawl, both of which are fastened to the spur wheel. The weight sets in motion the spur wheel and this communicates motion to the other spur wheel and pinion. The pinion is attached to a roller, which roller presses against another roller, both of these rollers are milled or slightly grooved on their surfaces, so as to prevent the paper from slipping while passing between them. There is a guide through which the paper passes. This guide is provided with an arrangement consisting of a ring and thumb screw, for the purpose of regulating the width of the paper to be used. This guide is adjusted by a screw, which terminates in a thumbhead. The axis of the roller rests in a slot in each of the plates; in these slots are placed two metal pins, which are kept close up against the axis of the said roller by the metal springs. The object of this arrangement is to keep the paper pressed tight between the rollers. A device for stopping the machinery at any desired moment consists of an upright projection on the metal strip, which metal strip works on a screw. When it is desired to stop the machinery, the handle of the strip is pushed out until it, (the rod), strikes against a revolving fan or metal strip fastened to the shaft. This causes the machinery to stop instantly.

The operation and construction of the key is the same as in Morse's, and therefore needs no description. It will be seen that the armature is represented as being down on the electro magnets, or in other words, the circuit is closed. The line wire is attached by the means of two screw cups. The operation is briefly as follows: The current passes along the wire from one screw cup to, and around the coils of the electro magnets, thence along a wire to the insulated button; another wire connects with the other screw cup and the metallic portion of the key. When the key is pressed down so as to strike the insulated button, the circuit is closed and the armature is attracted to the magnets, thus forcing the steel point into the paper and producing the required lines or dots. It is necessary to the success of this instrument, in a main line circuit, that the fulcrum of the lever should be as near the end which carries the point for indenting the paper, as is possible, without bringing it so close as to prevent sufficient range, so as to enable the electro magnets to exert a greater leverage.

By placing the fulcrum of the lever at the point above stated, I double the effective power of the instrument, or nearly so; but this improvement alone is insufficient to accomplish the result sought, successfully. In addition to, and in combination with this change, I employ a material change in the magnets used. Instead of making them of No. 22 wire, and of a weight of from four to eight ounces of wire, I use No. 32 wire and increase the weight of this portion of the magnet to about twenty ounces, or from that to two pounds of wire.

I also increased the length of the cores to about three inches, and their diameters to three-eighths or one-half of an inch. By constructing my apparatus in this manner, I am enabled to work an indenting instrument in a main line circuit of any ordinary length without the intervention or aid of a local battery, and by this means I entirely avoid the expense and trouble of the latter. This might perhaps be done by the change in the construction of the magnet, without changing the lever from an equal beam; but I prefer to construct the lever in the manner described, as it very materially aids in the accomplishment of the result. The combination with a registering instrument of a magnet constructed as I have described, enables the line current to operate upon the instrument with great intensity, and this intensity well supplies the place of the volume derived from the local battery by which it is now customary to work such instruments. The object of this improvement being to work an indenting registering instrument by the power of the main line current, it is obvious that the nature and gist of the invention consists in giving to the parts such a construction as to cause this current to act upon the instrument with sufficient intensity to properly indent the paper for ordinary business purposes, on a line of ordinary or equivalent construction and length in such a manner as to be available for the ordinary purposes of telegraphing, and that the line of distinction between this invention and the old form and manner of construction is found in the adaptation of the instrument to the successful accomplishment of this purpose, of which it was before incapable.

CLAIM.—I claim combining with an indenting telegraphic instrument, a magnet constructed according to the proportions described in the foregoing specifications, or substantially so, so as to accomplish the result stated by means substantially the same, that is to say, so as to give sufficiency of intensity and power of action to produce uniformly, legible indentations in the paper, in an ordinary line current, without the aid of a local battery, as herein above set forth.

MUNICIPAL TELEGRAPHY AT BRUSSELS.—The best results are expected of the establishing of telegraphic wires at Brussels, in view of assuring by a more efficacious and rapid means, the maintenance of order, and the surety of peace in the city. These lines of which the establishing is about complete, start from the City Hall and communicate with all the police offices, the barracks of the firemen, the gendarmerie, the promenade of the Cambre and the steam engine for the alimentation of the reservoirs of water.

Generally, telegraphy would be employed: 1st, To give advice to the burgomaster and to the chief justice of the peace of all events of nature to compromise the public peace or to promote their immediate intervention, such as: serious accidents, seditious assemblies, tumult and incumbrances in the streets, threats against the faculties, imminent perils, &c.;

2nd, To forewarn the stations of the firemen, the burgomaster, the chief commissary the gendarmerie, the engineer of the city and the other employees placed under his order, of all the events which would demand immediate attendance, such as: conflagrations, explosion of gas, buildings in danger, inundations, serious accidents to the water apparatus, sinks, &c.;

3rd, For the necessary communications between the functionaries of police, in view of the repression of crimes and offences;

4th, For the transmission of urgent orders and advices concerning the police and the administration of the promenade in the Cambre woods;

5th, And for the transmission of orders concerning the alimentation of water.—*Annales Telegraphiques*.

GENERAL OFFICERS

OF THE

NATIONAL TELEGRAPHIC UNION.

C. W. HAMMOND, PRES.,

P. O. Box 8,120, St. Louis, Mo.

J. C. UPHAM, RECORDING SEC.,

P. O. Box 2,407, Boston, Mass.

W. H. YOUNG, VICE-PRES.,

Am. Tel. Office, Washington, D. C.

KENNETH MCKENZIE, COR. SEC.,

Care Pacific R. R., St. Louis, Mo.

JAMES PARTRICK, TREAS.,

Am. Tel. Office, Philadelphia, Pa.

OFFICIAL.

ST. LOUIS, Jan. 22d., 1865.

S. P. PEABODY, ESQ., DIRECTOR OF ST. JOSEPH DISTRICT.

Sir: In answer to yours of the 20th, I have to say that the Constitution says nothing whatever about "teaching operators." As regards my individual opinion, it is as follows: I know of no objection to teaching operators in a legitimate manner, that is taking them into an office where they can get *experience*, and qualify themselves thoroughly for their new profession. It is plain to me that there must be more operators, and I think that it is very desirable that they should be taught by those who are competent to teach, and where they can get that one great requisite "*experience*," make themselves familiar with the various difficulties which they will have to encounter, such as "crosses," "ground connections," construction, and care of "main" and "local batteries," &c.

It is far from our true policy to refuse to instruct worthy men who wish to learn our business with a view of following it to obtain a livelihood. Should we, as a body, adopt such a course, the effect will be to do more for those pests of Telegrapher's "Commercial Colleges," than they could ever do for themselves. It would drive every man who desires to become an operator into their net, and telegraph operators would be manufactured as they hatch eggs in France—by the oven-full—and the worst of it is they would have to obtain their experience at ours and the Public's expense. I have no desire to be bored by such "artists," nor to bear any share of the odium which they would be sure to bring upon the profession at large.

Please urge upon your members the necessity of being very thorough with their pupils. Give them to understand that being able to send and receive a message is but one of the very many qualities necessary to constitute a first-class telegraph operator.

Yours truly,
C. W. HAMMOND, Pres., N. T. U.

DRAUGHT OF THE CHARTER TO BE GRANTED BY CONGRESS
TO THE NATIONAL TELEGRAPHIC UNION.

AN ACT to incorporate the National Telegraphic Union Association.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That C. W. Hammond, of St. Louis, Mo., Wm. H. Young, of Washington, D. C., Kenneth McKenzie, of St. Louis, Mo., J. C. Upham, of Boston, Mass., James Partrick, of Philadelphia, Pa., James G. Smith, and L. H. Smith, of New York City, A. H. Seymour, of Chicago, Ill., and J. J. Flanagan, of Louisville, Ky., and their associates and successors, are constituted a body corporate and politic, by the name of the NATIONAL TELEGRAPHIC UNION ASSOCIATION, to be located in the City of New York, and by its corporate name shall have perpetual succession, with power to sue and be sued, plead and be impleaded, in any court of law or equity, of competent jurisdiction, and may have and use a common seal, and the same to change at pleasure, and be entitled to use and exercise all the powers, rights, and privileges incident to such corporation; receive gifts, subscriptions, and benefits, and to make such rules and by-laws as shall be necessary and expedient for the government of the association, and the same to alter from time to time, in such mode as shall, by the association, be prescribed; provided, always, that such rules and by-laws shall be in nowise inconsistent with the CONSTITUTION and LAWS of the UNITED STATES, and the ordinances of New York City, or the objects of this association.

Sec. 2.—And, be it further enacted, That the officers of this association shall consist of a President, Vice-President, Secretary, and Treasurer, and an Executive Committee of nine, and such other officers as the general interests of the association may require, to be chosen in the manner hereinafter provided. A majority of the Executive Committee, with the President or Vice-President, shall constitute a quorum for the transaction of business. The objects of the association are hereby declared to be, the mutual protection in adversity, of members of the telegraphic profession, upholding and elevating the character and standing of the profession, the development of the science of telegraphing, the promotion and maintenance of the general interests and welfare of the profession and its members.

Sec. 3.—And be it further enacted, That said association is authorized to establish a uniform system of fees for admission to membership, in no case to exceed two dollars, and also uniform system of dues, payable periodically, at such intervals as shall be prescribed by the rules of this association; but such assessment of dues shall, in no case, exceed the sum of ten dollars in any one year.

Sec. 4.—And be it further enacted, That this association shall have power to organize in Districts out of the City of New York, auxiliary associations, to be composed of such persons as shall have become members of this association, under such rules and regulations not inconsistent with this act, as may be by this association prescribed.

Sec. 5.—And be it further enacted, That within thirty days after the passage of this act, the corporators named in the first section of this act shall draw up, or cause to be drawn up, a Constitution not inconsistent with the provisions of this act, for the government of the NATIONAL TELEGRAPHIC UNION ASSOCIATION, which shall be approved by a majority of said corporators; or if any refuse to act, then a majority of the remainder. And said corporators shall, also, within the space of thirty days from the passage of this act, fix upon some place of meeting for the preliminary organization of this association within the limits of the City of New

York, and shall there present for the inspection and examination of such persons as may desire to examine the same, the said Constitution from day to day, for the space of thirty days, or until the number of persons signing the same and becoming members of this association according to the provisions hereinafter prescribed, shall have reached the number of at least one hundred, or more, according to the discretion of the said corporators. Every person desiring to become a member of the association, while the preliminary organization is proceeding, shall be allowed to do so by the payment of two dollars, and signing the Constitution for the government of the Association. Due notice of the place of signing the said Constitution, and of the organization of the association, shall be advertised for the space of six days, in two of the daily newspapers having the largest circulation in the cities of Washington and New York, in advance of the time fixed for the preliminary organization. When the number of persons signing the Constitution and becoming members, as is hereinbefore prescribed, shall have reached the number of one hundred, they, or a majority of them, at a meeting appointed for that purpose, shall have power to proceed to organize the association upon a permanent basis, by the choice of officers, and the adoption of such by-laws for the regulation of the association, not inconsistent with the provisions of this act, as shall be deemed expedient and necessary.

Sec. 6.—And be it further enacted, That for the purposes of the association, and no other, said association shall have power to hold real estate, or personal or mixed estate, by purchase, gift, or devise; or to sell, lease, and convey such real estate or mixed estate, or personal property, as may be devised or donated to the association, and the leasing or sale of which will, in the judgment of the association, promote its interests, provided, that the value of the real estate, or mixed estate, or personal property, or the proceeds of sales thereof, held by said association, or the total amount of capital held by it, shall not at any time exceed the sum of one hundred and fifty thousand dollars.

Sec. 7.—And be it further enacted, That this act may be altered, amended, or repealed, at the pleasure of the CONGRESS OF THE UNITED STATES OF AMERICA.

DISTRICT PROCEEDINGS.

ROCHESTER DISTRICT.

Regular meeting met Jan. 2d. No quorum—adjourned.

Meeting called to order at 9 P. M., 6th ult., by the District Director. Five members present. Minutes of the last meeting read and approved.

Treasurer's report approved. H. S. Miner, of Batavia, and F. W. Garnsey, were duly elected members of this District.

Messrs. Bellows and Seymour were appointed a committee to ascertain the expense of printing the Local By-Laws. Adjourned at 10 P. M.

SPECIAL MEETING.—Called to order by the District Director at 9.15 P. M., 21st ult. Ten members present.

Messrs. Townsend and Stebbins were appointed a committee to ascertain the feelings of absentees on the subject of the Union. On motion the District Director was also added.

Mr. Stebbins moved to amend Clause 2, Art. 1, of the By-Laws, so as to read "First Tuesday" evening of every month, instead of "Monday," which was carried.

The District Director appointed each and every member a committee to solicit subscriptions for *The Telegrapher*.

The resignation of C. F. Smith, District Treasurer, was accepted. F. S. Stebbins, of Rochester, was elected on the first ballot to fill the vacancy. Adjourned at 10 P. M.

J. H. CRANE, Dist. Director.

IRA C. BELLOWS, Dist. Secy.

LOUISVILLE DISTRICT.

Monday, February 5th.

In consequence of the absence from the city of some of our members no quorum was present, and meeting was adjourned until Monday evening, Feb. 13th.

W. M. DE GROVE, Dist. Director.

JAMES H. BARD, Dist. Secy.

Adjourned meeting met Feb. 13th. District Director in the Chair. Eleven members present. Minutes of last meeting read and approved.

Mr. Biggert, Chairman of Committee on Meeting Room, reported recommending the acceptance of the office occupied by Mr. James R. Heenan, gold market reporter, at a monthly rent of five dollars. Report received and Committee discharged.

The Report of the Treasurer for the month of January was read, approved, and ordered to be placed on file.

The names of Perry A. Tailor, Bellaire, Ohio, and James Hoge, of Zanesville, Ohio, by W. L. Biggert, and J. H. Wheately, of Louisville, by J. H. Vestal, were proposed as members of the Union. Upon being severally balloted for they were unanimously elected members.

On motion of J. J. Flanagan, a committee of three was appointed to call upon the President of the Board of Trade, and endeavour to procure the use of their rooms for the monthly meeting of the District. The Chair appointed Messrs. Biggert, Flanagan, and Morris, as said committee.

Action on the report of the first Committee on a "Meeting Room," was postponed until the above named Committee make its report.

On motion of Mr. Biggert, the minutes of Dec. 5th, 1864, were corrected, so as to include the granting of a certificate of honorable withdrawal from this District to Mr. A. C. Jones, of Somerset, Ky., for the purpose of allowing him to become a member of another District.

Mr. Ellison moved that hereafter all action on names proposed for membership be delayed one month from time of proposition, in order that proper investigation of the character of applicants may be made. Carried.

Mr. J. H. Furnell was voted the thanks of the District for his gift to them of an elegantly furnished and inscribed ballot-box.

A communication was read from Mr. J. E. Jayne, formerly of Lebanon, Ky.,

tendering his resignation on account of leaving the profession, and asking for a certificate of honorable withdrawal. Resignation accepted, and the certificate ordered to be given on compliance with the rules in regard to a full payment of dues and fines to date.

A communication from Mr. A. B. Spencer, of Louisville, to the same effect and for the same reasons as Mr. Jayne was read, and like action taken.

Mr. Ellison moved that hereafter all resignations must be accompanied by the amount of dues and fines to date of application before being acted upon. Carried.

On motion of Mr. Flanagan, twenty-five copies of the March number of *The Telegrapher* were ordered to be procured for gratuitous distribution.

On motion, adjourned.

W. H. DE GROVE, *Dist. Director.*

J. J. FLANAGAN, *Secy. pro. tem.*

NASHVILLE DISTRICT.

Our second regular meeting held at 3 P. M., 12th ult. Meeting called to order by District Director. B. B. Glass, Acting Secretary, called roll. Eleven members present.

Minutes of previous meeting read and approved. District Director's and Treasurer's reports read, approved, and latter filed. District Director Dyer presented his resignation, offering good reasons. After some discussion on the subject, Mr. Somerville moved Mr. Dyer's resignation be respectfully declined for the present, say six months. Adopted.

Mr. Glass presented resignation of District Secretary, G. H. Shape. Sickness in Mr. Shape's family called him to his home in Wisconsin. He has concluded to remain north. On motion of Mr. Glass, resignation accepted. The Director nominated John Thode for District Secretary. Elected by vote.

The Director proposed C. Dwyer, P. J. Murray, W. H. Drake, and R. B. Lines, for membership. Admitted by acclamation, with the exception of Mr. Lines. Mr. Smith asked for qualifications and character of Mr. Lines. No member present being posted on the subject, District Director was asked to inquire into the matter and act as he saw fit.

District Director gave reasons for postponement or rather the delay in calling this second meeting. (Two months have passed since the first meeting.) That absence from the city, of himself, Mr. Shape, District Secretary, and nearly all of the local members, caused by military operations, during the months of December and January, had rendered it impossible to hold a meeting until now.

Mr. Railton presented name of Ira Dewitt for membership. The Director appointed Mr. Culbertson to inquire into Mr. Dewitt's fitness for admission, and report result to the Director.

The Director called on committee appointed at last meeting to draw up Resolutions of Thanks to the Philadelphia District for courtesy and attention shown our delegate while at the Convention in that city. Mr. Glass answered for committee, stating that no action had been taken owing to absence of both his colleagues on said committee since they were first called, and asking that another committee be appointed to act on above named resolutions. Approved, and a committee consisting of Messrs. Smith, Dwyer, and Glass appointed to draw up said resolutions. The Director notified meeting that Brother Merkley, sick in Daneville, N. Y., had called on this District, (of which he is a member) for assistance. On motion of Mr. Dwyer, Mr. G. H. Everitt was appointed committee of one to inquire into facts and report to the Director as soon as possible.

Mr. Culbertson asked that some action be taken by resolutions or otherwise, in respect to our lamented friend and brother, J. D. Olmstead, lately deceased. Agreed to, and Mr. Glass appointed committee of one to draw up resolutions. (These resolutions were published in our last issue.—*Ed.*) On motion of Mr. Dyer, meeting adjourned to first Tuesday in March, at ten P. M.

At the above meeting the following resolutions were unanimously adopted:

Resolved, That the members of this District do highly appreciate the generous hospitality and kind attention paid by the members of the Philadelphia District to Brother W. B. Somerville, while sojourning among them as delegate to the late Convention. Their kindness will never be forgotten, and we trust that the time is not far distant when an opportunity may be afforded us to show our gratitude in a more substantial manner than mere words.

Resolved, That a copy of these resolutions be sent to the Philadelphia District, and a copy to *The Telegrapher* for publication.

D. O. DYER, *Dist. Director.*

B. B. GLASS, *Secy. pro. tem.*

BOSTON DISTRICT.

Regular meeting called to order at 8-15 P. M., 1st inst. District Director in the Chair. After roll-call the Minutes of the previous meeting were read and approved.

The Director then read his Report.

It was moved that the Report be referred to a committee of three, who retire and report upon its acceptance. Messrs. Davin, Devereux, and Upham, were appointed such committee.

Mr. Reese presented the application of Mr. Albert L. Suesman, of Providence, for membership, who was unanimously elected.

Messrs. Wheeler and Martin resigned their positions as members of the Relief Committee, and Messrs. Labonte and McGee were elected to fill the vacancies.

The Committee on the District Director's Report here returned and recommended its acceptance, and offered a preamble and resolutions directing Ex-District Director Leighton to appear at the next meeting, and explain the irregularities of his administration of affairs, when Director of this District, which were adopted, and the Director's Report accepted.

The following is a brief extract from the Director's Report, which may be of general interest. "The total number of persons admitted to this District since its formation is sixty. Of this number four have been transferred to other Districts. Five have been expelled. Three have been honorably discharged. One has paid neither initiation fee or dues. Two are six months in arrears, leaving forty-five actual members at the present time. Of this number forty have paid their dues in full to February 1st, 1865, and four are three months in arrears. Of the present actual members, one has been transferred from another District."

Mr. Upham moved that further action upon the New York By-laws be suspended, and that a committee of three, one of which shall be the District Secretary, be appointed, to collect all orders, By-Laws, &c., and compile and revise the same, and present them at our next regular meeting, with the privilege of delaying one month, if necessary. Messrs. Upham and Devereux, with the Secretary, were appointed such committee.

The announcement was here made that "New Jersey had been admitted into the Union," which was received with great applause.

The Secretary read a letter from Mr. Gordon, asking to be reinstated as a member in good standing. After some remarks, Mr. Burns moved that Mr. Gordon be readmitted to membership upon payment of all back dues and local assessments. Carried.

A special invitation of the New Yorkers to the first annual ball on the 22d of March was read.

The Director read letters from Messrs. Ralph, W. Pope, and A. C. White, of Providence, withdrawing from the Union. The former for the reason that he is about leaving the country, and the latter for private reasons which were deemed perfectly satisfactory.

The Director also announced the honorable withdrawal of Mr. W. H. Richardson, he having left the business of telegraphing.

Preamble and resolutions were offered censuring the editor of *The Telegrapher* for his article on "Lady Operators," published in the last issue of that paper, when a lengthy and very exciting discussion ensued, in which nearly every member participated.

It was moved that the *ayes* and *nays* be taken, which was agreed to, and the resolutions were *lost* by a vote of five for to nine against.

The meeting at 11:45 o'clock adjourned.

H. W. WHEELER, *Dist. Director.*

H. S. MARTIN, *Dist. Secy.*

OMAHA DISTRICT.

A little band of five wire-workers met and shook hands over the Line on the evening of the 3d January, for the purpose of forming a District of the National Telegraphic Union.

Messrs. F. Lehmer, of Omaha, F. G. Becher, of Columbus, H. Brundage, of Fort Kearny, Ed. Rugger, of Cottonwood Springs, and D. A. Logan, at Cottonwood Springs, en route for Julesburg, were present.

With Mr. Brundage in the Chair, the meeting was called to order.

Mr. Lehmer was nominated and unanimously elected District Director.

He modestly accepted and entered at once upon his duties.

Mr. Brundage was then elected District Secretary. The Constitution and By-Laws of the N. T. U. were unanimously adopted.

On application, Messrs. Becher, Rugger, and Brundage were accepted members, and took the necessary pledge. Messrs. Lehmer and Logan having previously become members.

A name for the District came near being forgotten, but by common consent it was called Omaha District. A good, brotherly feeling was manifested by all.

On motion, meeting adjourned to meet again at call of District Director.

FRANK LEHMER, *Dist. Director.*

H. BRUNDAGE, *Dist. Secy.*

NEW JERSEY DISTRICT.

Pursuant to a call issued by Mr. J. A. Wright and others of that section, a meeting was held in Trenton, on Tuesday evening, February 21st, at which meeting delegates were present, (in person or by proxy), from nearly every part of the State, to form a District of the National Telegraphic Union, to be known as the "New Jersey District." Mr. R. J. Black, Director of the Philadelphia District was called to the Chair, and explained at length the object of the organization, after which it was resolved to proceed to elect permanent officers, which resulted as follows: For District Director, John A. Wright, of Trenton; for Local Director, S. N. Titus, of Lambertville; for Local Secretary, C. S. Beals, of Trenton; for Local Treasurer, W. V. Hinman, of Trenton.

Communications from several operators, expressing their approval and desire to become members, also guaranteeing a hearty co-operation, were received.

On motion of Mr. Wright, a vote of thanks was extended Mr. R. J. Black, of Philadelphia District, as President of the meeting.

On motion of S. N. Titus, a vote of thanks was extended to Mr. J. A. Wright, of Trenton, for providing accommodations for the meeting, after which the meeting adjourned, subject to the call of the District Director.

Great interest is felt in this section for the success of the "Union," and New Jersey expects to be represented in the next National Convention.

JOHN A. WRIGHT, *Dist. Director.*

C. S. BEALS, *Dist. Secy.*

NEW YORK DISTRICT.

Meeting called to order at 8:30, 7th instant. Twenty-eight members present! District Treasurer's report received, but not accepted, on ground of irregularity. The following gentlemen were proposed for membership: J. P. Kirchner, C. H. Myers, J. S. Van Duzen, A. G. Scranton, Thomas J. Dennis, American Telegraph Company; T. P. Brower, U. S. Telegraph Co.; W. F. Wilcox and H. F. Thurber, W. U. Co.; J. K. Thompson, Hoboken; R. G. Stephenson, People's Line. Vote upon their admission, stood 1 against all; 9 against Thompson and Kirchner, 1 blank, and 16 for all. The Director declared all duly elected except Thompson and Kirchner, who lacked 5 votes of the requisite three-fourths. It was stated that unsuitable age and want of proper experience in the business, disqualified them from becoming members.

Thomas Dakin, of Poughkeepsie, having left telegraphing, declined to become a member after having been elected.

Reports of Committees called for—that on procuring subscribers to *The Telegrapher*, first presented; eighteen subscribers for one year, and twenty for six months had been obtained. Committee directed to continue their labors. Communication read from Chairman Ball Committee, stating all arrangements made

(Continued on page 72)



L. H. SMITH, Editor, P. O. Box 3,393, New York City.

MONDAY, MARCH 27, 1865.

TELEGRAPHIC COLLEGES.

Messrs. Bryant and Stratton have established a chain of commercial colleges which reach from the Atlantic to the Pacific. Nearly every city of the least importance has a branch, or link rather, of this chain. The importance of these colleges to the commercial world and to young men is very great. A youth with but a common school education can enter one of these colleges and fit himself for any pursuit in commercial life. That the instruction given in these colleges is thorough and of the first class we believe, and nowhere but in actual business can so much be learned so thoroughly, and yet one false step has been taken by them, and this is their ineffectual attempt to teach telegraphing. To teach telegraphing in one of these colleges is like teaching a boy to swim on dry-land; the element is as much lacking in one as the other.

In the monthly publication of the Brooklyn branch we find the following:

"The business of telegraphing is rapidly growing into one of the most important departments of industry in the country. With all the efforts being put forth by the various companies themselves, as well as by special teachers and departments of commercial schools, the supply of good operators is quite short of the demand. This is owing in part to the exigencies of war, requiring temporary lines in connection with army operations, but more especially to the grand impetus which has been given to all departments of business by the expansion of the currency, and the opening of new channels of trade."

"The art of Telegraphy is one of the most interesting in the entire circle of industry, and yet so simple that it is often acquired by a smart boy in from two to four weeks. We do not mean to say that any one may become a thorough, practical operator in such a limited period, but that the mere art of sending and receiving messages over a line is often acquired in less than a month."

"To understand thoroughly the science of Telegraphy it is necessary to be a fair chemist, and to possess a general knowledge of physics; but comparatively few operators know any more of the philosophy of electrical currents, or of chemical action, than is necessary to be able to apply a few general facts to the particular duties at hand."

Much of the above smacks of good sense, and we wish these colleges might carry it out in their endeavour to teach the science of beating Time. Good operators can't be made, but must come by slow growth. We dissent decidedly from the assertion made in the above extract that, "The art of Telegraphy is often acquired by a smart lad in from two to four weeks." The last paragraph in the above extract is, we reget to say, too near the truth; but we have hopes that the day will soon come when its falseness will be proved.

Telegraphing is unlike any other profession. It cannot be picked up, but must be learned, and cannot be learned in a college, simply because they (the colleges) have not the requisite facilities for the necessary instructions. Every business has certain ear-marks which are not attained except in actual daily business. This holds good in Telegraphy, and in the latter there is something yet beyond, which, to the beginner, is buried in the unknown depths, and cannot be seen or handled but must be worried into an operator's nerves before he will be able to understand or appreciate it. It is on this point that these colleges fail to make good their promises. We might be poetic, and say to a graduate of one of these colleges,

"Not half of thy heavy task is done!"

When the authorities of these colleges promise a young man or boy to make him an operator in three or six months, or even a longer period, they promise that which they are unable to perform, for they can but teach the alphabet, the manipulation of the key, and the translations of the signs used, the care of batteries, and perhaps some notions of the subtle fluid and the formation of magnets; but this is not half the science, and is the easiest of acquisition. "Escapes" and "crosses" cannot be improvised to equal or assimilate to the old original vexatious bother, although a "ground" could be planted anywhere upon their purely local circuits, they would be unable to improvise a "swinging" one, and the same may be said of a "cross." Nor can these colleges show the effect of the "running down" of batteries, (unless they use the Carbon battery, which needs no instructions to exhibit its habitual course.) They will fail in showing the effect of an intense current, or the fusing of the platinum points of a relay, and we believe the aurora borealis never effects these college-strung wires, but play pranks with those which web the earth; nor can the college student have the pleasure of witnessing the eratic sports of the king of elements,

"To whose unseen hand 'tis given
To pencil the radiant clouds above,
And polish the stars of Heaven."

nor study its effects by being knocked senseless. These are advantages which no beginner should miss, and it would be cruel to deprive him from enjoying them.

The majority of these colleges have simply wires run from a battery, or perhaps once or twice around the room to the instruments; but others, heeding the clamour against their system of teaching, have strung wires for a mile or two about the cities wherein they are situated, and one which we have heard of lately, rented the privilege to attach their college to a railroad wire running several hundred miles

through an open country. If the latter objects can be affected, these colleges may turn out fair operators, who will have much to learn when they take positions upon lines. The Western Union Company have colleges at Oswego, Syracuse, and Binghamton, which are connected by wires running the whole distance in one circuit; they are thus able to turn out a good sample of new operators. The American and United States Companies effect nearly the same object by means of their city wires, upon which they practice their new beginners after they have learned the rudiments in the schools of these companies.

The opposition to these Telegraphic Colleges displayed by telegraphers all over the country has been beneficial to a limited extent by forcing them to secure the use of air lines, and yet we think they have been, in some instances, brought suddenly into notice by the publicity given by this opposition.

We are pleased to see President Hammond take hold of the subject as he does in his letter, which we publish in another column, and we hope every telegrapher will heed his words, and thus save to the unemployed population of young men their twenty five or thirty dollars, which they would otherwise pay to these colleges to simply learn to read and write with the Morse language incorrectly.

When every Telegraph office is willing to take one or more students for nothing, except a little light service rendered, it seems an imposition on the part of these colleges to charge \$25 for what they cannot teach.

We print in another column of this issue the original draught of a Charter, the granting of which, the Union through its Vice-President, has been praying Congress. Its passage in the House, wherein it originated, failed, simply for want of time. The Sub-Committee of the House Committee for the District of Columbia, which had it under consideration, made a favorable report, but the full committee, for the reason above stated, were not called upon to report it to the House. It lay-over among unfinished business until the xxxixth Congress convenes. We regret this delay, and yet we are glad the subject is open for the next Convention to perfect. Some minor alterations have already been made and others may be suggested. There was some opposition manifested by several members of the committee; but it was not well grounded, and was easily overruled after some delay. Representative Morris, of Ohio, (who we believe was once a telegrapher), did all he could to hasten its consideration by the committee. This Charter was framed, we believe, by Mr. J. S. Lansing, (clerk to the committee), with the advice of Vice-President Young.

The cut which ought to illustrate the article upon the first page of this issue was lost during its transit from a distant city. We did not discover this loss until it was too late to engrave another or substitute an article for the one which we print. If we are able to procure another draught of Clark's repeater we shall, in another issue, print a cut of the same.

We are unable this month, as we announced and expected, to present this number with a new heading, owing to the late day on which the design was placed in the hands of the engraver; but we shall be able next month without doubt, to spread before our readers our paper with a frontispiece which we hope will please all.

The crowd upon our columns has become so great that we shall be compelled very soon, to enlarge the size of *The Telegrapher*, by adding another sheet, making it sixteen instead of twelve pages. Should gold continue to decline until it reaches a healthy level, we may be able to make this addition next month, if not then, we feel quite sure of doing so in May.

We shall expect our readers to make an effort to send us an additional number of subscribers and advertisements to meet this increased expense, for, aside from our attention, the success of *The Telegrapher* mainly depends upon the assistance rendered by our friends in forwarding us subscriptions.

A large portion of our last month's mail edition was detained in the New York post office more than a week, for some reason which we were unable to learn when the fact was brought to our notice. We conclude, however, it was *profound stupidity* of one or more of the clerks in the post office, the largest share being due to the clerk in the Box Department wherein our box is situated, for these delayed papers were in a large basket at his feet for seven days before he gave us notice of their detention. Neither this clerk nor the Superintendent of the Newspaper Department could give us any satisfactory excuse for their detention. *The Telegrapher* is always dated on the last Monday of each month, and mailed the previous Friday, and therefore we will thank any one of our subscribers to notify us of the non-receipt of their paper within a reasonable time after its issue.

The first Annual Ball of the New York District of the National Telegraphic Union, took place at Irving Hall on the evening of the 22d instant. The attendance was large. The decorations were very neat and tasty, the "Old Flag" being displayed in great profusion. The dances were well arranged, and the music of Wallace's splendid band seemed to put new life into the feet of the gay dancers. The Floor-manager, (Oltman), displayed great taste in his arrangements of the sets; the Floor Committee were ubiquitous, and did their duties well; the Reception Committee were remarkable for their suavity of manners and the generous welcome they gave the guests. Among the distinguished persons present, we noticed Prof. Morse's family; Hon. Henry O'Reilly and daughter, and Judge Hearne and family.

The enjoyment was all that could be asked or wished for. The entertainment was a success beyond the most sanguine expectations. Over four hundred tickets were sold, which will leave a very handsome sum in the Treasury of this District. The Ball Committee, Messrs. Christie, M. B. Lillis, Oltman, Burnham, and Redding, deserve great credit for the very handsome entertainment which they have succeeded in giving, and for the bounteous return which they will be able to make. We hope the success of this effort will stimulate the members of this District to give, annually, some pleasing and profitable entertainment.

Mr. Cyrus W. Field has gone again to England to assist in perfecting arrangements for the laying of the Atlantic Cable this summer. He sailed in the Cunard steamship *China* on the 10th inst. Before his departure a complimentary dinner was given him in this city by a number of gentlemen who fill prominent position s

in the telegraphic world. We regret that a report of this dinner was not furnished us for publication. We are informed that the entertainment passed off pleasantly, and was a well-merited compliment to the recipient, and reflects great credit upon the donora.

TELEGRAPHIC MISCELLANEA.

A MOST EFFICIENT PUBLIC OFFICER.—Major Thomas T. Eckert, whom our readers remember as the gentleman in whom so much confidence was manifested by the President during the recent correspondence concerning the rebel commissioners, is one of the most accomplished telegraph superintendents and operators in this country. He has for a considerable time occupied the most highly confidential and most respectable position of superintendent of the military telegraph. His services in conducting communications between the Government and its generals and others in the field, have been extremely laborious, and of incalculable value. Most of said communications is made with a cipher system so admirably invented, that it cannot be interpreted by the most skilful of the rebels.

ATLANTIC TELEGRAPH COMPANY.—At the annual meeting of the shareholders of the Atlantic Telegraph Company, held in London on the 9th of February, the following gentlemen were elected Directors: Sir Samuel Cunard, Baronet, Mr. Edward Cropper, and Mr. George P. Bidder, Civil Engineer of London. Mr. E. M. Archibald, Mr. Peter Cooper, and Mr. Wilson G. Hunt, of New York. Mr. Hugh Allan, of Montreal. Up to Friday evening, February 17th, 1,289 nautical miles of cable had been completed, and about 100 miles were being manufactured per week, and the Great Eastern will be all ready for sea with the entire cable on board by the 1st of June.

COLLINS' OVERLAND TELEGRAPH.—The grand effort to connect the Old and New Worlds by telegraph, by way of Behring's Straits, is now fairly commenced. On Tuesday, 7th inst., the steamer *Shubrick*, Captain Scannon, sailed from San Francisco, with Col. Bulkley and party, for Sitka, or New-Arhangel, in Russian-America, bearing the pioneer exploring company for the line. She will land a party at Victoria, whose business is to work up through the Frazer River region until they connect with the Russian-American branch. Thence they proceed through the unexplored regions between the regular Rocky Mountains and the Coast Range to the Youcan River, and so on to the neighbourhood of Cape Prince of Wales. These cold and inhospitable regions are quite unknown, save from the dubious report of the aborigines, and the reports of the lightning explorer's toils will have the charm of history from the New World. Mr. Gamble, Superintendent of the California State Telegraph Company, went on the *Shubrick*, and lands at Victoria, to finish a small gap in the wire, between Bellingham Bay and New-Westminster, British Columbia, on Frazer River. The telegraph will be working in two or three weeks between San Francisco and British Columbia.

COMMUNICATION WITH SAN FRANCISCO DIRECT.—On Sunday morning at three o'clock, 5th inst., the wires of the Western Union Company were connected with the Pacific lines and communication established direct between this city and San Francisco. Though the weather was bad, rain falling at the time at many points on the route, the wires worked well, and a considerable amount of business was transacted. The distance is nearly four thousand miles, and the difference of time about four hours. This is unquestionably the longest telegraphic circuit ever worked, and the fact that such a length of wire was telegraphed over in one circuit is a notable era in the history of telegraphing.

EXTENSION OF THE FIRE ALARM TELEGRAPH.—The advantages of this branch of the fire department have been made so apparent since the brief experience of this city with it, that the estimates are now before the Corporation for the addition of twenty-one alarm boxes to the number already in use.

The principal cities throughout the country are now moving towards the addition of the police and fire alarm telegraph to their police and fire departments. From the San Francisco *Morning Call*, December 30, we learn the arrival of Mr. Kennard, the contractor, there, and the commencement of the survey of a route. The telegraph there will be about the same as in Washington, but more compact, the space occupied being not more than one and a half miles diameter. The buildings in that city are mostly wooden structures, and very dry, for from March to December in each year there is little or no rain. For protection against fire the department there has over fifty engines. With the telegraph the city expects to be able to dispose with all except about fifteen.

At Louisville, Kentucky, the fire alarm telegraph is being constructed without the attachment of the police telegraph.

At Chicago, Illinois, the largest in this continent is in process of construction. The alarm boxes will number over one hundred, and the entire work will require over one hundred miles of wire.—*Washington Chronicle*.

SUPREME COURT—CIRCUIT.—Before Judge Clerk.—D. C. Wharton, Smith and E. D. Randolph, vs. *The Independent Line of Telegraph*.—The plaintiffs in this action are bankers and brokers in the City of Philadelphia, and the defendants have an office in that city and also in the City of New York, between which places they transmit messages for a stipulated price. On the 15th of March, 1864, the plaintiffs delivered at the office of the company in Philadelphia the following dispatch:

"If the gold bill is vetoed, buy immediately \$100,000."

Upon the authority of this message it seems the \$100,000 in gold was purchased; but it was immediately afterward ascertained that for some reason the telegraph company had transmitted the dispatch omitting the word "if" at the beginning making it read, "the gold bill is vetoed, buy immediately \$100,000," &c. When the error became known to Smith & Randolph, the Philadelphia brokers, they at once sent another dispatch to New York as follows: "March 15, 1864. Don't buy any more; you had better sell that \$100,000 out at once; the company has made the mistake; see the manager." On the receipt of the first message Drexel, Wintrop & Co. bought the \$100,000 for \$162,225, in accordance with the reading of the telegram. The plaintiffs in the action now seek to recover damages in the sum of \$3,000 and interest from March 16, 1864, which they allege they have sustained, in consequence of the erroneous transmission of the dispatch. The case was tried before the court without a jury, and the decision was reserved.

TELEGRAPH EXTENSION.—The work of extending the Western Union Telegraph along the line of the Erie Railroad, and its northern connections, is rapidly progressing. The wires are now being strung in that vicinity. The posts are all up between New York and Buffalo. Two wires are strung about 25 miles on the Buffalo division, about the same distance on the Susquehannah, and about 40 miles on the Delaware. Branches will also be run to Cleveland and Hornsville, via Salamanca and the Great Western, to Dunkirk; to Rochester, via Corning and Avon, and to Canandaigua as soon as practicable. It is expected that the wire will be all up between Elmira and New York city by March 15.

WE REGRET that the person who, at the last meeting of the Boston District, offered resolutions censuring us, did not have the moral courage to attach his name thereto.

TO ALL WHOM IT MAY CONCERN.—We are unable to learn that an agent is now in this country employing operators for Brazil or any of the South American states.

TELEGRAPHIC DISPATCH.—The Postmaster General has received a dispatch from Portland, Oregon, on the business of his department, dated February 28, written in the place named, which passed over 3,836 miles of wire, and reached the destination in less than twenty-four hours.

MILITARY TELEGRAPH.—The Secretary of war in his annual report says: "The telegraph has continued to be a most efficient and valuable aid to military operations. Six thousand five hundred miles of military telegraph have been in operation, of which three thousand miles have been constructed during the year. About one thousand persons have been employed in this work. The efficiency and fidelity of the officers and operatives of the military telegraph deserve special recognition."

THE CABLE.—The regular monthly meeting of the Chamber of Commerce held on the 8th inst. A. A. Low Esq. in the Chair.

A communication was received from the Ocean Telegraph Company, of London, asking the aid of the Chamber to promote this enterprise by using its influence with Congress to secure the subsidy asked for, which, on motion of Captain Marshall, was laid on the table, because the name of James Spence, the rebel banker, was given as one of the grantees.

THE NEW HAVEN JOURNAL says that a new brokers' board and news room has been opened in Hartford, by Jonas J. Hubbell, in the same room occupied by the People's Telegraph, and they have direct communication with Gallaher's board in New York, and other boards. On the first night which the office was opened gold was reported every five minutes during the evening. Two gentlemen made \$5,000 during the evening, buying gold.

A **FIRE** alarm telegraph, similar to that now in use in Providence, R. I., has lately been introduced in Cleveland, Ohio. The citizens of Toledo in that State also propose to adopt the same system.

TELEGRAPHIC FREAKS.—The valedictory of Mr. Speaker Colfax was very much twisted up by the lightning on the road from Washington to New York. Besides many other inaccuracies, one sentence alluding to the flag, which was printed here thus—"waves as indisputed at this hour over the cradle of *reunion* at Charleston as over the cradle of liberty at Faneuil Hall, and that the whole *Government* is afire with the brilliant glow of triumph," should have read, "Secession" for "Reunion," and "firmament" for "Government," quite a different idea.

TELEGRAPH TO INDIA.—The opening of the telegraph to India has been formally announced in England, causing considerable sensation.

Private messages from Calcutta had reached Constantinople in twelve hours, and a message from Kurrachee had reached England in 8½ hours.

The telegraph service on the line from the head of the Peninsula to India is excellent, being performed by first-class English telegraphers, but it will be some time before service on the English line can be rendered equally trustworthy.

T. A. N. Y.—We cannot publish your letter; if we do we must give the others the same chance. The subject is closed in all its bearings, for the present at least.

J. W. T., MADISON, IND.—De La Rive's treatise on electricity and magnetism is considered the best work on these subjects extant. John Wiley & Son, 535 Broadway, N. Y., have them for sale, price \$30.

A. P. C., ATCHISON, KS.—We are unable to inform you where McGann's paper reels can be purchased.

R. H. S., LITTLE ROCK, ARK.—N. T. U. badges must be obtained of the Treasurer of the Union, whose address you will find on the fourth page of this issue, price \$4, payable in advance.

ADDRESSES.—We will thank any of our readers who will kindly furnish us the address of A. Smith, Jr., and J. W. Walsh.

MARRIED.

At Phelps, N. Y., May 6th, 1864, Mr. Frank A. Stumm, of Cleveland, O., to Miss Lula C. Wetmore, of N. Y. At Philadelphia, February 2d, by Alderman C. Brazer, Mr. Wm. F. Ziegler, to Miss Mary A. Brazer, all of Philadelphia.

DIED.

In Cleveland, 18th inst., Charles Davenport, Sup't. of the Southern Division of W. U. lines, after a few days' illness.

In New Brunswick, N. J., Dec. 18, 1864, of inflammation of the lungs, Edward Gordon, aged 47. Mr. Gordon, at the time of his death, was one of the oldest telegraphers in the country, having been one of the pioneers of the old Magnetic Co., and was in the employ of that and the Am. Co., eighteen years. Telegraphers have lost a warm and dear friend, and the Company a faithful servant. His memory will be fondly cherished by the remnants of the "Old Corps," and all those who knew him.

QUOTATIONS OF TELEGRAPH STOCK.

CORRECTED BY JOHN HORNER, CASHIER, AMERICAN TELEGRAPH OFFICE, NEW YORK.

Western Union,	\$100 shares par	Montreal,	\$100 shares, 131 @ 132 gold
American,	" 162	Nova Scotia, 20	" 16 "
Russian Extension,	" 35	Vt. & Boston, 50	" 25
Ill. and Miss.,	\$50 " . . . par	Troy & Can. Junct 50	" 25
East Indi,	" . . . " Maine, 50		" 70
United States,	\$100 " by the Company		98

THE TELEGRAPHER.

OUR LOUISVILLE CORRESPONDENT, J. J. F. writes as follows, under date 17th Feby.: "Through the courtesy of Captain S. E. Jones, A. D. C. in charge of prisoner of war, I have succeeded in furnishing Major Butler (C.S.A.), with a copy of the Constitution and By-Laws of the Union, and the last number of *The Telegrapher*. Major B. is now in Ft. Delaware."

THE CABLE.—It is announced that the *Terrible*, with some other powerful steamer, will accompany the *Great Eastern*, to assist in laying down the Atlantic Telegraph cable.

CHANGES.—Mr. James G. Smith, ex-President of the N. T. U., has been appointed Superintendent of the Maine and New Brunswick Districts of the American Co.'s lines, and will be assisted by Mr. W. P. Merrill, and R. T. Clinch, in the Maine and New Brunswick Districts, respectively. Mr. W. H. Young, Vice-President of the National Telegraphic Union, has resigned his position with the American Co., in Washington, and accepted the management of the U. S. Co.'s office in that city. Mr. H. B. Berry has been transferred from the Assistant-Managership of the American Co.'s Washington office to Managership of Willard's Hotel office, same city and company. Mr. W. H. H. Clarke, Director of the Washington District, N. T. U., has been transferred from the American Co.'s Willard's Hotel office, Washington, to be Assistant-Manager of their main office in that city. Messrs. F. G. Beach, George Warren, W. G. Wilkie, and M. C. Laven, have left the employ of the American Co. and taken positions, (the first three) in the U. S. Co.'s, and the last in the W. U. Co.'s offices, this city.

To the Editor of *The Telegrapher*:

The operators and other employees in the American Telegraph Co.'s office in this city, wishing to present Mr. Gerritt Smith, who has just left us to assume the management of the U. S. office in Providence, with some slight token of their esteem for him, who has proved so bright an ornament to our profession, appointed a committee, consisting of Messrs. J. Harlow, Thomas A. Davin, and James C. Barrett, to solicit subscriptions, and to purchase such article or articles as their judgment dictated.

The result was the purchase of a very fine seal ring and several of the best works on telegraphy extant. These articles were forwarded to Mr. Smith, accompanied by a very appropriate letter of presentation, written by Mr. Barrett, expressive of our high esteem, and deep regret in parting with so good a friend and so honorable a gentleman. It will, doubtless, be gratifying to Mr. S. thus to be apprised of the deep hold he has upon our hearts, and to know that he leaves none but friends behind.

That his life may be long and happy, and that prosperity may accompany all his undertakings, is the sincere wish of all who know him.

SIGMA.

Boston, February, 1865.

PRESNTATION.—The chief operators and managers of the Metropolitan District American Co.'s city lines, have just presented to their late Superintendent, Mr. John C. Hinchman, a very feeling letter expressing their regret on receiving his farewell address, and conveying their good wishes for his future prosperity. The letter has been beautifully engrossed, by one of our celebrated ornamental penmen, and handsomely framed in black walnut. The design reflects great credit on the taste of the donors; and the artist, who executed this elegant work, has produced a most beautiful specimen of the art caligraphic.

BERGEN TUNNEL.—The telegraph apparatus for signalling trains passing through the Bergen Tunnel, has been nearly completed. Four martello towers, two at each end, for the Erie and Morris & Essex Roads respectively, have been erected, connected with wires running above the Tunnel.

B. & O. R. R. TELEGRAPH LINE.—New life has been infused into the working of the Western Division of the American Telegraph Co.'s lines, since the appointment of Mr. A. G. Davis, as Superintendent, he having, for several years been in charge of the Canada Grand Trunk Railway Co.'s lines. The American Co. have, under his supervision, put up an additional wire between Baltimore and Cumberland, and a new wire from Grafton to Wheeling, and opened a new office in Marietta, during the past two months. The lines are in comparatively good order, and business can be done with promptness and despatch to points between Wheeling, Cincinnati, Marietta, Parkersburg, and Baltimore.

HEAR US.—We would take it as a special favor if the Secretaries of the Companies whose stock we do not quote, would favor us, by telegraph, on the Tuesday before the last Monday of each month, the latest correct quotations of their stock.

PATENT CLAIMS.—**46 618.—TELEGRAPH CABLE.**—Daniel H. Southworth, N. Y. City, assignor to himself, Blase Lerillard, and Charles Ferris, White Plains, N. Y.—I claim inclosing and separately insulating several telegraph wires or conductors in a cable by means of an insulating piece having fins or flanges, and otherwise constructed substantially as herein specified.

46 639.—REVOLVING MAGNETS FOR TELEGRAPHES.—James J. Clark, N. Y. City.—I claim the revolving-wheel, A, with roughened edge, in combination with a telegraph receiving or main magnet, applied in the manner and for the purpose as hereinbefore specified.

46 670.—COMPOSITION FOR INSULATING TELEGRAPH-WIRES.—Samuel C. Bishop, assignor to the Bishop Gutta-percha Company, N. Y. City.—I claim a composition for insulating telegraph wire, consisting of gutta-percha, or India rubber and parafine mixed with either rosin and wheat-flour, or with a tannate of gelatine and white oxyde of zinc, substantially in the manner and about in the proportion herein set forth.

HON. EZRA CORNELL, one of the pioneers of telegraphing in this country, a citizen of Ithaca, N. Y., some years since commenced at his own expense the enterprise of establishing a public library for the benefit of that place. He intended to give \$50,000 for the purpose, but as he put up the building himself, he has spent \$100,000 at it, and has thus erected a splendid edifice, containing a library, reading-room, lecture-room, farmers' club-room, &c. He has now offered to the State Government a donation of half a million of dollars, to endow a university at Ithaca, on condition that the State Government shall give to the institution the land fund, granted by an act of Congress for the endowment of agricultural colleges.

A RAID.—While proceeding towards Egypt, on the line of the Mississippi Central Railroad, Mr. Kortz, a telegraphic operator, who acted as clerk to General Grierson, in his late raid from Memphis into Mississippi, tapped the wire at different points, and thus obtained despatches of a highly important character, as to the intentions and movements of the rebels.

ENTERPRISING.—The Western Union Telegraph Company are about to erect a building at Cleveland, Ohio, to be used for the manufacture of wire and insulators of a superior quality, for their own use. A manufactory of telegraphic apparatus will also be connected with the establishment. The great increase of business arising from the immense development of the petroleum interest, and their sources, taxes the telegraph lines to their utmost capacity, and it has been found impossible otherwise to meet the demand for supplies and material caused by the rapid extension of lines, and the opening of numerous offices.

The office of this company at Cleveland has also been greatly improved by the addition of a new and spacious operating wire, which for beauty and convenience of arrangement is not excelled by that of any other in the country. The walls are adorned with photographic portraits of the operators, some ten or twelve in number executed in the best style of the art—an excellent idea, and one worthy of imitation in other offices.

CORRECTIONS.—Type seem to take particular delight in making us say that which we did not intend. The resolutions of Mr. Taylor in the proceedings of the Chicago District, printed on page 57 should read as follows: "except as its numbers are decreased," also "much opposition was manifested to the adoption, &c." In the list of cables printed on page 54, the seventh line should read "Saybrook" instead of Naugatuck, and the 43rd line should read, "Arichat, C. B. across Gulf of Canso."

ANOTHER BALL.—The operators in Boston are to give another ball, the second this season, on the 17th prox. We hope they will meet with success.

SETTING TYPE BY TELEGRAPH.—We are informed that it is intended to apply electricity to Alden's type-setting machine, so as to enable a person in Washington to set type by telegraph in the offices of the large daily papers in this city. It seems feasible.

THE POST OFFICE AND TELEGRAPH.—There is a project on foot in France to combine the post office department with the administration of the telegraph lines. As they are both controlled by the government this will probably be effected.

TELEGRAPHIC NEWS CO.—A company has recently been formed in London to supersede Reuter's telegraphic news office. They announce that the latest and most important news will be obtained from the seat of war in this country. We hope they will make it a point to tell the truth more frequently than has been done by foreign news agents heretofore.

DISTRICT PROCEEDINGS.

(Continued from page 69.)

and everything progressing satisfactorily. Committee on "Obtaining a Room" reported great difficulty in successfully terminating their labors, owing to the scarcity and excessive high price of suitable places.

Mr. Christie offered a resolution, directing the Director to purchase a ballot-box for the use of this District, for the election of members. Adopted.

Mr. L. H. Smith offered resolution that the Ball Committee be requested to procure, and cause to be issued complimentary tickets to the general officers of the Union, the Directors of the several Districts, the general officers of the various Telegraphic Companies, the Press of this city, and to Mr. John Hasson, agent, *Associated Press*, Philadelphia.

Mr. Redding moved to amend by striking out "the Directors of the several Districts," as a general invitation had already been extended to them through *The Telegrapher*. Resolution as amended, adopted. Adjourned 9.50.

W. STEINHOFF, Dist. Director.

D. R. DOWNER Dist. Secy.

BALTIMORE DISTRICT.

Meeting called to order 3-25 P. M., 5th inst. District Director in the Chair. Roll called. Seventeen members present. Proceedings of previous meeting read and approved.

The following gentlemen were proposed and elected members of this District:—James Wolfinger, Edward Vandersloot, and Charles H. Gogel.

On motion of Mr. Williams, it was ordered a copy of New York By-Laws be procured, with a view of their adoption in this District.

The Treasurer then submitted the following quarterly report, which was read and accepted.

Treasurer's Report for the Quarter ending January 31, 1865.

Jany. 31	Dr. To Quarter's Dues.....	\$71 00
	" Amount received for Reinstatement..	2 55
	" Initiation Fees.....	22 50
	Cr. By Remittance to Treasurer, March 6.....	87 55
	" Unpaid Dues	8 50
		<hr/>
		\$96 05
		96 05

CHARLES B. DAMRON, Treasurer.

After the discussion of matters of local importance, the meeting at 5 P. M. adjourned.

A. WILSON, Jr. Dist. Director.

M. H. KERNER, Dist. Secy.

CHICAGO DISTRICT.

The District met on the 5th inst., pursuant to adjournment, and was called to order by the Director. On calling the roll it was found there was no quorum present, whereupon the meeting was declared adjourned for one month.

E. B. CHANDLER, Dist. Director

GEO. MAKLE, Dist. Secy.

CORRESPONDENCE.

PHILADELPHIA, Jan. 24, 1865.

To the Editor of The Telegrapher:

In your November number of 1864, there is an article entitled "Susannah and her Sisters." Without presuming to know Susannah to the extent which embraces individuality, I am supposed to class among her "sisters."

Without attributing to your correspondent "Spark" (of lightning it is supposed), any such motive as the exercise of modesty, permit a kind word of commendation for all that he arrogates to himself and disparages in lady telegraphists.

He "regrets being obliged to record" certain things which he calls "facts". Who obliged him to do so; and why does he regret it? It would rather seem that he quite enjoys it. He talks largely of the mistakes committed by our sex in the transmission of telegrams. Of course "Spark" could not err although he is known to be a very fickle fellow. He says:

"It cannot be denied that a prejudice exists in the minds of some of the male members of the profession against the employment of ladies as operators."

Now, if this is so, is it not an *unpardonable mistake*? He goes on—"In the matter of penmanship, also, very many of them are sadly deficient." Now, sir, I have seen an autograph superscription written by one holding a high official position in the "Telegraphic Union," the chirography of which would be a discredit to an eight year old schoolboy.

Again he goes on—"It is rare to find one who is contented to write the Morse alphabet plainly and steadily, in good honest dashes and dots. Sundry embellishments must be added, which are neither ornamental nor useful."

This is an utter impossibility, and, therefore, another mistake. He says, we indulge in the disagreeable and affected style of "clipping" our letters when engaged in transmission. Now, to *clip*, means to take from, while to embellish would imply that something had been added. This contradiction is so palpable that I need scarcely stop to call it a most ridiculous mistake. If we are not content to make *honest dashes and dots*, we are contented to make round and full dots—horizontal lines according to their relative proportionate length and spaces, with strict regard to equality, both as to letters and also words, and to connect the circuit with all the firmness of "*strong-minded women*." This sparkling correspondent would, no doubt, feel his vanity tickled to learn that the most *universal favorite* among the sisterhood is a prototype of himself.

It's "a pity, but pity 'tis, 'tis true" that his attempt at criticism is so sadly deficient of what Lindley Murray is supposed to have once taught. He has been surprised and pained—was the pain heartfelt, or deeper and sadder? "The overbearing manner of these lady telegraphers is surprising." Oh, wonderful Spark, that could be so astonished by an uncourteous girl!

"There is a broad field open," he tells us. Wonder if it is about Sitka, or further north—or is it at the corner of some by-street where all the *mistakes* of a lifetime are corrected under the blaze of some invitingly embellished lamp, beckoning the passer-by to indulge in the choicest smiles of refinement, mixed with the purest whiskey, unquestionable Lynchburg, and genuine Havanas. There are no *mistakes* committed there—Oh no!

That such results have been attained we have abundant evidence. I could mention a telegraph office, doing a large commercial business, the operators of which are given to customs "which are more honored in the breach than in the observance."

Last, though not least, "Spark" has committed a sin of omission altogether unpardonable in telegraphic usage, namely, that of neglecting to date his dispatch.

If he is half as willing to learn as he seems anxious to teach others, and can comprehend why "a little learning is a dangerous thing," would he but peep into the great mirror of nature, he may, by beholding the nakedness of his intellect, and the raggedness of his reasoning, be glad to hide under the mantle of

CHARITY.

[The above letter was crowded out of our last issue, and is the last of the series we shall publish—ED.]

MADISON, IND., Dec. 12th, 1864.

To the Editor of The Telegrapher:

For the last ten months I have been living in this beautiful city, and with the exception of a twenty-four hours' visit to Cincinnati, in the summer, have not been outside city limits for five hours at a time. Not having, (I am sorry to say), any "professional" correspondents, I have become very ignorant of what is going on in our own little world. Consequently, I was greatly surprised and exceedingly gratified to learn through friend Flanagan, of Louisville, that you had started a paper devoted to the telegraphic interest.

Your 2d and 3d numbers have just reached me; am sorry you cannot send the first number, as I intend to be a constant subscriber, and would, of course, like to have it complete. I cannot express in writing the pleasure I felt in reading your paper. It is what I have long wished for, and have no doubt it will prove to be a great benefit to us all, if supported as it should be.

The article in No. 2, headed, "Has Telegraphing Degenerated?" meets my hearty approval; and I would say, please give us some more of the same sort.

I would also respectfully suggest, that it would probably gratify a large number of your intelligent readers, to see in your columns a list of publications relating to telegraphy, their prices, and where they can be procured. (*Published in No. 5.*) In connection with this, would it not be a good idea to establish a "Purchasing Agency" for the benefit of your subscribers? (*We hope, by the end of the year, if not sooner, to establish one*—ED.)

But perhaps you will think me rather forward with my suggestions, and rather than incur your displeasure, I stop. I commenced this merely to say how well pleased I am with your paper, and that I shall try to increase its circulation.

Begging pardon for sending such a long letter, I remain yours,

J. W. T.

PHILADELPHIA, Dec. 28, 1864.

To the Editor of The Telegrapher:

In the November number, I stated in reply to a communication from "Ajax," that in the fall of 1860 Mr. Joseph Fisher, of Nashville, Tenn., sent fifty-five words in one minute, and at the rate of fifty-two words per minute, for five minutes.

In the December number, "R. H. S." asks what words were sent, how many letters in each word, &c. ? Mr. Fisher opened a number of *Harper's Magazine*, and sent the first words his eyes rested upon—they were sent as printed, without abbreviations, and were received by Mr. Leonard, of Louisville, (since dead), by sound, and copied just as sent; this was done at the request of Mr Van Horn, then Division Superintendent of the South Western Telegraph Co., to show a gentleman connected with the French telegraphic lines, what could be done by the Morse system in this country.

K.

PHILADELPHIA, December 29th, 1864.

To the Editor of The Telegrapher:

I am pained to observe, in the published proceedings of many of our Eastern Districts, a tendency to undue harshness towards certain delinquent members. When we consider that our institution is as yet in its infancy, and its organization very incomplete, the question arises, are we justified in enforcing such a rigid compliance with the strict letter of the law? I do not refer to the action taken towards those pensioned "plugs," who are swindling the public in bogus colleges—but to those lukewarm friends of our cause, who, from a careless inattention, and no fraudulent design, have neglected to make good their dues.

While we steadfastly adhere to the fundamental principles of right and justice to all concerned, I would urge that a little more patience and forbearance be exercised toward this latter class. When they become convinced, (as they must ere long), of our stability and the righteousness of our cause, their flagging interest will receive a powerful stimulus, and they will return with redoubled ardor to the good work.

We have joined hands in forming a brotherhood of operators for our mutual benefit, and to elevate and promote the science of telegraphing. Many outsiders, however, still ignorant of our true designs, are likely to form conclusions directly opposite, by hearing of these arbitrary measures. Let operators join us, resign, or be expelled, but we can find no precedent to justify us in publishing their names or exposing their faults before a thousand readers.

B.

NEW YORK, February 10, 1865.

To the Editor of The Telegrapher:

Please allow me to say to your correspondent "Pacific," and the readers of *The Telegrapher*, that the article on the Pacific Telegraph which he refers to, was compiled in great part from extracts relating to the subject, cut from the newspapers of the day, and preserved for reference. Thinking they would interest the readers of your paper, I put them together, for publication in its columns. The statements in regard to the number of workmen, and amount of transportation employed, and some other matters, were taken from an article in *The Annual of Scientific Discovery*, which I supposed to be good authority.

It will serve as an additional illustration, if any were needed, of the average amount of confidence to be placed in newspaper paragraphs.

Permit me to thank "Pacific" for setting this matter right, and to hope that he as well as his brother telegraphers in the Far West, will continue to make us occasional visits through the columns of your valuable journal.

ELECTRON.

CHICAGO, 1864.

To the Editor of The Telegrapher:

"Hub" asks a question with regard to the utility of having the armature cut out the "adjusting magnet" in Hicks' repeater.

When a magnet is used instead of an adjusting spring, the armature must necessarily be nearer that magnet when that "main circuit" to which it belongs is broken, than when it is closed, and as the force exerted by a magnet upon its armature is *inverse* as the square of the distance the spring (magnet) will exert more power to hold the armature back when the main circuit is open than it will to bring it back when it is closed, and tend to make the instrument "work tough," or "sticky." The "vibrating principle" remedies this in a measure, as to use Mr. Hicks' words, "It is impossible to close the main circuit at a time when the adjusting magnet is not cut out," and thus the armature will *start* toward the relay magnet with more alacrity than it otherwise would. The remedy is not, however, complete, for immediately upon *starting* toward the relay, the armature again receives the full force of the adjusting magnet, *at that distance* which must be greater than when it has receded the whole distance from it.

This is my opinion as to the utility of the arrangement, but as to the "points claimed" by Mr. Hicks, I am not enlightened

SPRING.

ST. INIGOS, MD., Feb. 6th, 1865.

To the Editor of The Telegrapher:

I notice a new telegraphic alphabet published in No. 4 of *The Telegrapher*. The suggestions to do away with "spaced letters" is a good one; and as you say, it is strange the subject has not received earlier and more attention.

The "Collins' Alphabet," I think, has some objections, in many of the letters being lengthened, and changed so much from the old Morse alphabet.

I submit an alphabet, in which I have tried to adhere to the Morse, and at the same time doing away with "spaced letters." Should it meet your approval you can publish it.

A	— —	J	— — —	S	— —
B	— — —	K	— — —	T	—
C	— — —	L	— —	U	— —
D	— — —	M	— —	V	— —
E	-	N	— —	W	— —
F	— — —	O	— — —	X	— — —
G	— — —	P	— — —	Y	— — —
H	— — —	Q	— — —	Z	— — —
I	— — —	R	— — —	&	— — —
1	— — — —	4	— — — —	7	— — — —
2	— — — —	5	— — — —	8	— — — —
3	— — — —	6	— — — —	9	— — — —
		0	— — — —		

THE TELEGRAPH.

BY JOHN FIRBRONT.

When the half century that now expires
Drew its first breath, of telegraphic wires
Nothing was known; a bonfire on a hill
Had long announced approaching good or ill.
The Hebrews' fire-sign on Beth Haccarem,
Told of the spoiler that was threatening them;
And the same signal hailed the Greek with joy,
And knew from it the fate of fallen Troy.
Bale-fire that played on Teviot's rocky head,
Reflected from the Teviot's glassy bed,
Advised the wary Sestaman of "the hour"
When from the South "approached proud Edward's power."
Nay, then the wooden telegraph's long arm
Had just been taught to indicate alarm.
And, I believe Brequet and Betancourt
Had also made the Gallic semaphore
To do as much as that, and something more;
('Twill be remembered that the famed "blue lights"
That burned so treacherously on Groton's heights,
To show the British how to run away
From our own guns were of a later day!)
But now both editors and newsboys laugh
At the Bale-fires and the timber telegraph.
Quicker than you can light your beacon fire,
Morse yokes the lightning to his car of fire;
And if the message travels with the sun,
In less than no time is the message done.
On heaven's sweet light and all the affairs of men,
A hero chieftain, laying down his pen,
Closes his eyes in Washington at ten.
The lightning courier leaps along the line,
And at St. Louis tells the tale at nine.
Halting a thousand miles whence he departed,
And getting there an hour before he started.—*Telegraph Review.*

WHEATSTONE AND BAIN.

COMPILED FOR THE TELEGRAPHER BY OSM.

Having lately come in possession of two old works on the Electric Telegraph, &c., published in 1843 & 1846, I am enabled to present the following series of interesting letters passing between the above two gentlemen in connection with the invention of the Electric Clock and the Electro-magnetic Printing Telegraph.

Mr. Alexander Bain was born in the north of Scotland, by trade a clock and watchmaker. In 1837 he came to London to follow the same business. Very shortly after his arrival in that city, while hearing a lecture on Electricity, at the Adelaide Gallery, his attention was first drawn to the use of Electricity, as a power to move clocks with. Then followed his Electro-Magnetic Printing Telegraph.

In 1840, he had completed both inventions, with a view to their practical introduction. He waited on Sir Peter Laurie on the 1st of August, 1840, who gave him the following letter of introduction:

7 PARK SQUARE, 1st August, 1840.

MY DEAR SIR:—The bearer seems to be a very clever young man, and has something worth your notice. As you understand all these things thoroughly, I have sent him to you. It is not an effort to obtain money, but to introduce something really useful. Could you recommend him to the Society of Arts?

T. DR. BIRKBECK, Finsbury Square.

With this letter Bain immediately waited upon the Doctor, who was then, however, unfortunately too ill to be seen, not knowing in that case what to do, he repaired to the office of the *Mechanics Magazine* in Fleet Street which he reached about noon. Here he met with Mr. Baddeley, the able mechanist, who was then the assistant Editor of that Journal to whom he minutely explained his two inventions, and who recommended him to wait on Prof. Wheatstone with the same explanation, at King's College, close by, with which Bain immediately complied and saw the Professor for the first time, on that very morning. On this, the first interview, the Professor listened to Bain's disclosures with profound attention and apparent surprise; but giving no hint that he was himself occupied with similar projects, he said that he would see him again on the subject at another time. It is a circumstance full of suspicion that he fixed their second interview at his own house, for so distant a day as the 18th of August. They accordingly met at the Professor's house, when Bain produced his models, viz.: the one that of the electric clock, the other that of the printing telegraph. The Professor advising Bain to postpone for the time being all proceedings with reference to the electric clock, without the smallest hint that he had ever thought of such a thing himself, agreed to purchase the model of the printing telegraph, disclosing for the first time, that he also was then contriving a printing telegraph on another construction. Two papers were drawn up on the spot and signed by them respectively. Bain understood that they were both to the same effect. That in his possession is as follows: "In addition to the sum of five pounds which I have given you for the model of your proposed modification of the printing apparatus, to be added to the electric telegraph, I will give you fifty pounds in the event of my making any profitable application thereof. That is, should I have any instrument made for sale in which the inking roller is employed, and in which the wheel, on the circumference of which the types are placed, is bodily moved forward, in order to impress the types on the cylinder carrying the paper, instead of the types being pressed individually, as in my instrument." (Signed.)

"C. WHEATSTONE,

"London, 20 Conduit St., 18th Aug., 1840."

Bain then proceeded to construct another printing telegraph on far more elaborate principles, and of greater power, and looked out for a friend to join him in patenting the invention of the clock. Not doubting that his improved principle of the printing telegraph would be highly acceptable to the Professor, he waited upon him for the third time, at his own house, with a rough model of his new invention. But Mr. Wheatstone objected to the much greater expense, and declined to have

any concern with it. In the meantime Mr. Wheatstone hearing of the active efforts of Bain to obtain patronage, and the probability of his success, immediately repaired to the residence of Bain and entered into a new agreement, without the precaution of putting it into writing. By the new treaty it was provided that the Professor should, from time to time, supply the necessary funds for the materials and workmanship of two perfect working models, one of the simpler, the other of the more complex printing telegraph, which Bain had thus invented, and that on the application of either of those principles to the intended improved telegraph of Mr. Wheatstone, Bain should receive a further sum of one hundred and fifty pounds as the price of both inventions. He had before then secretly set one of his artificers to work on the construction of a clock which should be perfect *facsimile* of that of Bain's. Pursuant to the new treaty Bain's labors proceeded for several months, the simpler principle being finished, and the more complex plan being far advanced, the time had arrived for throwing Bain overboard, the Professor's clock being now secretly finished. Bain had received in various small sums, altogether about twenty-five pounds, and the first symptoms of estrangement which he discovered were, that the supplies began to be more and more reluctantly yielded. On being importuned the Professor desired the finished model to be taken to him on a given day at King's College, with which Bain complied, in the hope of obtaining some part of the payment now due him. At the time appointed, however, the Professor was invisible, but had left orders with the porter to take in the model, which was left accordingly. Although thus disappointed of the needful advances, Bain continued his labors on the second or more complex model, until at length he found that the money in arrear amounted to as much as he had received. Becoming impatient, he was desired to carry the second model, in its unfinished state, to the Professor's house for inspection. This he complied with, and also left the model there, having evoked a small instalment of three pounds. But he never again set eyes on either the first finished, or second unfinished model, nor yet on his well-earned money. Ten times over did Bain call for the unfinished work in order to resume his labors, and ten times over was the Professor denied him. At last Bain began to fancy that his models were in some sort purloined, and that he himself was little better than a dupe. About the middle of December, 1840, determined to have an explanation with Wheatstone, he called at his house at 8 P. M., and had his final interview. To his utter astonishment, the Professor put himself into a violent passion. Bain soon saw that he was not only to be chosen, but bullied, and he retorted accordingly. Bain, however, retired from this disgraceful scene he being *minus* and the Professor *plus* his models and twenty-five pounds of arrears, to say nothing of his further expectation of one hundred and fifty pounds eventually.

(To be Continued.)

SMITHSONIAN INSTITUTION FIRE.

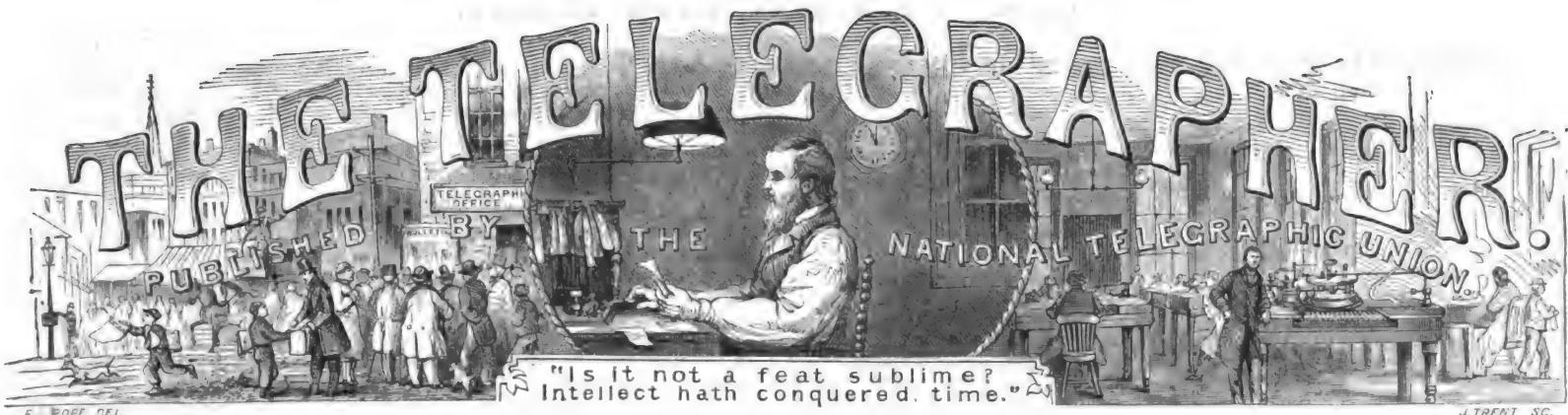
Apparatus of great historic interest was destroyed by the recent fire at this institution. Among the articles were all the chemical apparatus presented by Prof. Hare, a large magneto-electric machine, an electro-magnet, and set of apparatus illustrating the discovery of the vibration of Trevallyn's bars by galvanism, presented by Prof. Page. The magneto-electric machine was of peculiar construction a full description of which is given in Vale's work on the American Telegraph. Noticing its performances the author says: "This machine operated Morse's telegraph in 1844, through eighty miles of circuit, makes an electro-magnet sustain 1,000 pounds, and melt a platinum wire one-fiftieth of an inch diameter."

The *Intelligencer* says: "The fire originated in the loft above the picture gallery. Workmen had been engaged there hanging up pictures, and the room being cold, they put up a stove, and it is supposed, ran the pipe into a defective flue, and thus caused the fire. The fire spread rapidly and soon the roof of the lecture room fell, driving out the firemen who were endeavoring to confine the flames to the picture gallery. The fire spread to other portions of the building. It was deemed prudent to remove the furniture from the east wing, occupied by Prof. Henry as a private residence, and also the stuffed birds and preparations from the taxidermist's rooms; but in the haste, and from the narrowness of the passages much damage was done to the property so removed."

The library in the west wing and the residence of Prof. Henry in the east wing, will be saved from the ravages of the flames. The museum on the lower floor is also safe, for the floor between it and the upper rooms is of brick, and constructed so as to be fire proof.

The instruments and apparatus in the east wing were worth at least, \$10,000, and it is not yet known how many were saved.—*Scientific American*.

CHEAP TELEGRAPHY.—It is now an established fact that a decreased tariff means an increased traffic. Lower the duty on any article of consumption, and the increased demand for it will more than compensate the revenue for the reduction of duty. High fares are always unproductive to a railway company. Excursion trains are invariably crowded by a class of travellers who would never travel at all, or very rarely, if it were not for the attraction of low fares. A newly-constructed railway is sure to create for itself a traffic, both in goods and passengers, which did not previously exist. No better illustration of this principle can be brought forward than the present penny postage. With a postage traffic of tuppence the number of letters sent was exceedingly limited, and mercantile and business transactions were cramped and retarded; and to nothing is the principle so peculiarly applicable as the electric telegraph. There can be no doubt that from the high rate of charge for the transmission of messages, the great mass of the people were for a long time excluded from the daily use of the telegraph. The community at large had no more idea of sending a telegraphic message, except on some very extraordinary occasion, than they would have of writing the number of letters they do if the old rate of postage was in force. Still, the use of the telegraph, although considerable reduction in the prices has taken place, is not familiarized to the minds of the masses, except as something to fly to on an emergency; the excess over the shilling excludes it from being so extensively used as it ought to be. What is wanted is, to bring the telegraph within reach of the great mass of the middle classes, who would use it if the charges were from sixpence to one shilling, or even less for short distances, and for a certain class of messages. When Mr. Thomas Allan first proposed a cheap system of telegraphy he found but little favor or encouragement. It is now, however, clear that cheap telegraphy is feasible, and that it is remunerative also, as evidenced by the rapid extension of the shilling system in England.—*Telegraphic Journal*.



Vol. 1.

New York, Monday, April 24, 1865.

No. 8.

THE TELEGRAPHIC REPEATER.

(Continued.)

HICKS' REPEATER OF 1862.—CONCLUDING REMARKS.

The repeater of Mr. Clark, of which a description was given in our last number, was soon followed by another, the invention of G. B. Hicks, of Cleveland, Ohio, who, it will be remembered, had previously patented a repeater operating by means of an automatic circuit changer, which we have referred to in a former article. This second invention of Mr. Hicks was patented March 4th, 1862, and in principle is totally unlike his repeater of 1858. Its arrangement and mode of operation are shown in the annexed drawing.

The main circuits are arranged in the same manner in this as in the repeaters of Clark and of Farmer and Woodman—passing through the relay magnets M , M' , thence to the repeating points f , f' and g , g' upon the opposite sounder levers respectively, and thence to the battery and ground at G , G' . It will be observed that the platina points of the screws f , f' are placed upon U shaped springs, which is preferable to the method employed in the instruments heretofore illustrated.

The ordinary local connections are made through the sounder magnets R , R' the relay armature leavers a , a' and screw points b , b' in the usual manner, and require no further explanation. The regular local batteries and connecting wires are omitted in the drawing for obvious reasons.

The extra local magnets L , L' act upon armatures placed upon the relay levers a , a' but upon opposite sides from the regular armature. (See diagram.)

These extra local magnets are movable by means of the screws a , a' and the adjusting of the relay magnets M , M' is done by means of these extra local magnets, the springs s , s' not being used for this purpose.

In the drawing, the repeater is shown in its normal position, with the eastern and western circuits both closed. The circuit of the extra local batteries B , B' (shown by dotted lines) pass through the sounder levers l , l' the screws P , P' and thence respectively to the extra local magnets on the opposite side of the combination. These armatures must be so adjusted that their attraction is not sufficient to draw the armature away from M , M' unless the main circuit be broken.

It will also be seen by referring to the drawing, that when the main circuit is broken and the armature falls back on the point c , that the extra local magnet L , is "cut out." But the instant this happens the spring s draws the armature away again. As soon as the contact is broken at c , there is a circuit through L , and the armature is again drawn back to c . The tension of the spring s being but just sufficient to draw the armature away from c , the armature lever will *vibrate* on the point c , through such a small space, and with such rapidity, as to be invisible to the eye. These vibrations being so extremely rapid, it will be impossible to close the main circuit at a time when the extra local magnet L , is *not cut out*, and consequently the armature will instantly obey the slightest impulse caused by the attraction of the relay magnet.

The operation of this repeater requires but little further explanation. If the western circuit, for instance, be broken, the armature lever a , falls back and vibrates on the point c , as above stated. The sounder lever l , first breaks the circuit of the eastern extra local magnet L' , and then that of the eastern main line through the relay M' . The circuit through both L' and M' being thus broken, the slight tension of the spring s' will hold the armature in its place, and prevent the local circuit through R' and consequently the western main circuit, from being broken. The reverse of these operations will, of course, take place when the western line is again closed.

The arrangement by means of which the armatures of the repeater are made to vibrate in the manner described, is, for several reasons, a great improvement over the ordinary method, in which repeater magnets have heretofore been constructed. The inventor says:

"The effect of this contrivance is, that all writing will come on the same adjustment, in other words, if there be a high adjustment necessary for a distant office, there will be no necessity to turn down for offices that are near, nor for the writer to get his own writing."

Again: In ordinary weather, and under ordinary circumstances, there is less adjustment necessary than with the usual magnets, because the adjustments may be made very high once for all, and a considerable change of circuit may ensue before it becomes necessary to change the adjustment."

The merits of this repeater are sufficiently attested by the fact that in the short time that has elapsed since its first introduction it has almost entirely superseded every other instrument of the kind from Halifax, Nova Scotia, to San Francisco, California, being used by both the American and the Western Union companies, throughout their immense ranges of telegraph lines. When properly constructed and set up, it has always worked satisfactorily, and we have observed that when in operation, it requires very little attention under ordinary circumstances.

As this instrument has come into such general use throughout the country, we shall, no doubt, confer a favor upon many of the readers of *THE TELEGRAPHER*, by giving them the benefit of the inventor's own directions for its management.

"The springs s , s' should be very light, and should have the smallest possible tension—all that is required is to hold the armature in place, and a very little will suffice. These springs when once adjusted should be let alone. Care should be taken that none of the wires under or about the magnets touch any part of the brass. The extra local magnets, for example, may be cut out entirely in this way.

The screws that adjust the extra local magnets, should be oiled with fine oil to prevent wear and render their adjustment easy. It will be found that repeating on springs is much better than the usual method."

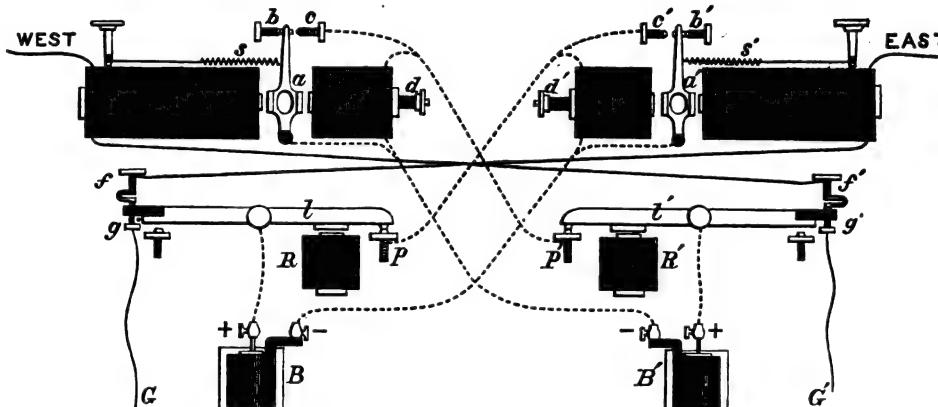
The repeater is usually provided with buttons or switches, by means of which the repeating points may be cut out. When these buttons are closed the instruments may be worked on each line separately.

A modification of this repeater has been devised by G. F. Milliken, of Boston, Mass., dispensing altogether with the "vibrating principle." The relay is the same in all respects as that employed in ordinary Morse instruments, and the extra local magnet has a separate armature lever and adjusting spring, and is placed in such a position, that when the circuit through it is broken, its armature falls back, and comes in contact with the relay armature, and holds it in its place while the main circuit on that side is open, thus preventing the regular local circuit connected with it from opening likewise. The sounders and their connections and attachments, are identical with those shown in the annexed drawing of the Hicks' Repeater.

We are unable to see wherein this arrangement is preferable to the original one of Hicks. On the contrary, we should naturally suppose it to be inferior to it inasmuch as it does not employ the "vibrating armature" which we consider to be one of the most valuable features ever applied to this instrument, and one which has brought it to a state of perfection leaving little to be desired.

Thus have we endeavored faithfully to trace the history of the telegraphic repeater, with its various modifications and improvements, from its original inception down to the present day. It has been a matter of much difficulty in many cases, to obtain the facts and data necessary to get a correct history of the different inventions. We have endeavored to award impartial justice to the claims of each inventor, to the best of our knowledge. Yet, it is frequently no easy matter to ascertain with certainty the originator of a really valuable invention or improvement in any department of science, among the number of conflicting claims put forth by different persons. It is very possible that these papers have contained many omissions, errors, and inaccuracies, we can only say that we have done the best we could in the limited time that could be spared from other duties. Through the agency of the Telegraphic Repeater, that wonderful instrument, New York and San Francisco speak face to face, though four thousand miles of prairie, mountain, and valley stretch away between. A few years more and it will join together each link of the chain which will girdle the world with the electric flash. Yet its history has been unwritten, and in the absence of those better qualified, we undertook the task—with what success, we will leave to the judgment of our friends, for whose benefit it has been written,—the practical telegraphers of America.

ELECTRON.



ELECTRICITY AND THE RESISTANCE OF RELAYS.

BY GEO. A. STEARNS, CAMBRIDGE, MASS.

When Franklin succeeded in drawing a spark from the thunder cloud, he with it kindled a flame which has spread with unexampled rapidity all over the civilized world.

Dispelling the darkness of superstition and driving away the terrors with which it had previously been associated, it gave birth to the new science of electricity, which science was destined to reduce it to the condition of a servant to the very race which it had previously terrified by its brilliant flashes and loud thundering.

The date of the science is coincident with Franklin's experiment. Scarcely one century has passed, and yet to-day electricity holds its high place among the sciences, and art is largely dependent upon its developments for her practical operations.

No sooner was the veil of superstition removed than men began to examine its phenomena and to raise various hypotheses and theories relative to its nature and properties. These have followed each other in rapid succession, and the almost simultaneous discovery of the chemical process of galvanism has made the two kindred, if not identical sciences, fitly to keep pace with each other, until finally Faraday enveloped them all in one simple formula, and promulgated the fact that electricity and galvanism are only modifications of the same essence.

In the present article I propose hastily to glance at the various theories of electricity and galvanism, and then to apply the principle of the conservation of force, in explanation of the well-known fact that a relay interposed upon a telegraph line causes a loss of current directly proportionate to its own.

Du Fay's theory of electricity assumed the existence of two fluids—a positive and a negative, as he called them, which were supposed to exist in every substance, and which, when united, mutually neutralized each other, but when separated each was left free to go in search of its correlative for which it had a most powerful affinity.

Hence it was, that when two thunder clouds approached each other, the one charged positively the other negatively, they mutually interchanged their contents, and while the flash which was consequent caused the lightning, the union of the two fluids neutralized both. Franklin assumed that there was but a single fluid pervading all substances; that in a state of nature all bodies possessed these in proper proportions, but, that if by any cause its quantity was increased, the body became positively electrified, if diminished, negatively electrified; that when two bodies, one having a surplus, the other a deficiency, approached each other, there was a strong tendency to equilibrium by a discharge from the highly electrified one.

It was found that in order to make this hypothesis consistent, it would be necessary to assume that all particles of matter naturally repel each other instead of attracting, according to Newton's theory, and the hypothesis of Franklin was, therefore, discarded.

The essential identification of electricity and galvanism has opened a new field for speculation and investigation, and new theories have been advanced. The first and oldest here is that of the fluids—that in galvanism as in electricity there were two opposite fluids which had a mutual attraction for each other, and which would seek to unite when furnished with proper conductors.

This hypothetical fluid, however, was found to be absolutely imponderable, and to make its way through solid substances at the astounding rate of 25,000 miles per second, and these facts led some philosophers to demur to the existence of such fluids, and they proposed to substitute the theory of the transmission of an effect.

As polarity was one of the distinguishing marks of the fluid as well as of the magnet, they conceived that it was this only which was transmitted; that the chemical action upon the two metals induced polarity in an atom of the substance, which atom, communicating with the next, induced in it an opposite polarity, and thus instantaneously, almost, the effect was transmitted throughout the longest distances. Two objections were obviated by this theory, viz.: the necessity of conceiving such a fluid to pass through solids at such an inconceivable velocity; but two other objections immediately present themselves—the first that it was equally inconceivable that the effect should be transmitted so rapidly, and the second, that iron which was found much susceptible of polaric influence, should be found among the poorer conductors.

These theories, though not entirely discarded, are rapidly falling away, and the scientific world is now straining every nerve to show that they are all untenable, to maintain the harmony of nature, and to reduce the phenomena of sound, heat, electricity, and light, all of them to forms of motion. That sound is a form of motion has long been known.

The Newtonian theory of harmonious particles has already given place to the theory that light is a form of motion, and thus the two extremes of the series have been satisfactorily established. Heat and electricity remain, and we find that nature has left a space for them as modes of motion.

The velocity of the slowest vibration of light is 458,000,000,000,000 undulations per second, that of the highest vibration of sound is less than 5,000 per second.

Such a vast gap is found nowhere in the harmony of nature, and the space can be filled, if filled at all, only with the vibrations of heat and electricity. Nor is this mere supposition unsupported by proofs.

Heat like electricity has been attributed to the effect of an imponderable fluid, and also to the transmission of an effect; but these hypotheses have now been generally abandoned, and it is commonly admitted that heat is a form of motion. Electricity is last in the scale, but slowly and surely its phenomena, also are resolving themselves into forms of motion.

Allow me, then, in the present article, to assume as proved, what the scientific world is confidently anticipating, and what nature herself seems evidently prepared for, that electricity, like light, heat, and sound, is a form of motion; and bear with me while I attempt to apply to this hypothesis the theory of the conservation of force.

It has long been admitted that spirit is indistructible. More recently it has been maintained that matter is indestructible, and finally it is asserted that force, or motion, the manifestation of force, is indestructible.

It is not meant by these assertions that spirit may not change, that matter may not change, that force may not change, for we know with regard to matter and force at least, that they do change.

The seed which is sown in the earth, if it sprouts, changes by absorbing and

adding to itself substances obtained from the earth. The tree is not the seed, and yet the seed is not destroyed, it is changed with the tree, and the sum of the parts of the seed and substances extracted from the ground is necessarily equal to the tree itself.

If the seed die it is not annihilated, its form only is changed. From the form of the seed it has assumed the form of earth, but it is not destroyed. The same applies to force.

If one body strikes another which is immovable, both bodies may, apparently, stand perfectly still, but the force is not lost. It has created changes in the structure of the solids, which changes are precisely its equivalent, and these changes have produced others, and thus the force is preserved through an infinite series of changes, but is not destroyed.

(To be Continued.)

PLAN OF A UNIVERSAL TELEGRAPH LANGUAGE.

BY ED. ROBERT.

In a study on the different styles of telegraphic writing that the *Annales* have recently published. (t. VI, p 480), are found briefly stated, and by title of simple hypothesis, a problem of which I very nearly three years ago in a note submitted to the Director General of the telegraphic wires, indicated the importance, laid down the terms, and in a certain manner, giving the solution. It is that of the publishing of a telegraphic formula, permitting, in part, the abridged and secret transmission of the telegrams; on the other hand, universal correspondence that certain persons considered wrong according to me, as an unlikely plan. Though under these two aspects, the problem has not yet all the practical importance which it will bear some day. There arises an interesting theoretical question, that of the possibility of a new style of writing especially favorable to telegraphic correspondence. This being a new idea, perhaps, will be received with some interest by title of compliment of the quoted article, a brief exposition of my system.

Three kinds of writing can be distinguished: 1st, the *Phonetique* writing, be it syllabical, be it alphabetical, which represents the sound and the word; 2d, the ideographical writing, hieroglyphical or symbolical, which represents the ideas, be it by their likeness, be it by an emblem, a sign of agreement, which is the more often but an abbreviation of the image or of the word; 3d, the numerical writing, which does not represent the words or the ideas, but the place which one or the other occupies in a given series. According to the series will be that of words or of the ideas there will be, therefore, two kinds of numerical writing, one alphabetical, the other ideological. In both cases the signs are numbers indicating by their relative positions and their own differences the precise spot of the series where should be found either the word or the idea. Our practical vocabularies in the detailed examination of which I cannot now enter, are the best examples of numerical alphabetical writing which can be given. The principle is, always the employing of a double series, one alphabetical the other numerical, (sometimes parallel). These two series composed formerly, besides the words, portions of phrases often very long, now they are reduced nearly to words. The characters, the letters, &c., represent, directly, or indirectly, the series, the page, the column, the line, but each group never represents more than one idea.

It is this last system that I have wished to complete and transform. Two principles simultaneously employed, have furnished the means. One is the substitution of the logical series to the alphabetical, the other the application of the proceedings of reckoning to the representation of the ideas.

The alphabetical order is simply accidental, and varies from each language; if instead of classing the ideas in the order of the initials of the words which they have for signs, one should class the words, the signs in the natural order of the ideas which they represent, one would have what can be called an ideological dictionary in which the classing would have nothing more arbitrary, and in consequence could be the same for all languages, which would reduce it in some measure to a common standard. This is what I call substituting the logical series for the alphabetical. Supposing this dictionary construed and the ideas numbered, numerical alphabetical writing becomes then ideological. What remains is to reform the reckoning.

Now, after the system of decimal numeration essentially based on the use of the zero, and thanks to the character simply symbolical, hieroglyphical of the cypher. Any number, say 59405, presents three properties equally remarkable, on which we now dwell.

The first property, that is to say the sum of $50,000 \times 9,000 \times 400 \times \&c.$, that is to say of amounts weaker and weaker and in some measure, less and less general; the second, that the names of the different quantities are completely understood; that the nature of the quantities are indicated but by the relative situation of the cyphers which make known the number of each of them, and in the end, notwithstanding their difference, all the united orders are represented each one in rank by the same signs in very small number. Finally, the third property, which is but a consequence of the second, is that not only the figures 5, 9, 4, 0, 5, are read by each person in his own language, but that the entire amount represents for a Frenchman, a German, &c., the same idea, the sum of the same quantities, $50,000 \times 9,000 \times 4,000 \times \&c.$

Each idea even, can be conceived as the sum of ideas more and more special, each idea can in turn be designated by a group of numbers (or other signs), made in adding numbers which will represent by the number of zeroes which shall follow each figure, the rank of each one of the elementary ideas, and by the figure itself to take the idea by the designated rank. Thus the number and the group thus formed will be a universal symbol which every one will interpret in his own language, provided this language possesses a translation of the ideological dictionary. An example will suffice: The sweet-brier is a kind of rose, the rose a species of plant, the plants a family, &c., after the classification of the vegetable kingdom of the framing of the dicotyledons.

Suppose for one moment that each of these categories comprises but from one to nine cases, and grant to represent respectively the kingdom, the framing, the family, the kind, the species by tens of thousands, thousands, hundreds, &c. (The particular ideas, variety for example, might be represented by decimals, tenths, hundredths, &c.) The idea of the sweet-brier being conceived as the sum of the ideas less and less general of vegetable, of dicotyledons, &c., this plant might be represented by $22,735,20,000$ expressing the idea of the second reign, 2,000 that of

the second framing, &c. And the type will be of universal value, in supposing well understood, previous accord on the classification of the existence.

It is to be seen that this or a similar idea has been announced, and in part realized, at the end of the last century, by a certain Haimieux and by the Abbot Sieard. After their system, the correspondents, in some number, in order to make themselves understood, had only need of the knowledge of their maternal language. The words were classed in an ideological order, unfortunately not very logical. Twelve abridged signs called gamuts represented the classes, under-classes, &c., to which belonged each idea.

To apply actually to the representation of phrases, the mode of writing reserved until now to numbers, and that I have just enlarged to simple ideas, I take firstly the more elementary case, that of a proposition, subject, verb, and attribute, such as, "Peter is sick," susceptible of receiving from one to nine subjects, (Peter, John, Jules, &c.), and from one to nine qualities, (is, has been, will be, is no more, &c.), and from one to nine attributes, (ill, very ill, in danger, dead, &c.) I still consider the proposition as an amount of ideas more and more special, the subject being the more general, since it is successively determined by the verb and by the attribute. I therefore represent the subject, the verb, and the attribute, by hundreds, tens, and units, and I construct a table of the following form:

In French, 100 Peter, 200 John, 300 Jules, 400, &c.

10 is, 20 has been, 30 will be, 40 is no more, 50 &c.

1 ill, 2 in danger, 3 dead, 4 &c.

In German and in English the same.

(To be Continued.)

PATENT SPECIFICATIONS.

Samuel F. Day, of Ballston Spa, N. Y., Letters Patent No. 44,855. Dated Nov. 1, 1864. Improvement in Telegraphic Instruments.

To all whom it may concern:

Be it known that I, Samuel F. Day, of Ballston Spa, in the County of Saratoga, and State of New York, have invented certain improvements in telegraphs, and I do hereby declare that the following is a full, clear, and exact description thereof.

The object and purpose of the first part of the said invention is to more perfectly and fully insulate the sounding instrument from the current at the instant of the opening of the circuit, or at least, from the tendency of the current to prevent the lever from vibrating with that delicacy and promptness which is desirable in telegraphic instruments. In the ordinary telegraphic apparatus now in use, this is but imperfectly accomplished, and the result is that a much heavier circuit is required to work the instrument than would otherwise be the case, and with the loss of power by the grounded current, much more original force of battery is made requisite than is in the use of my invention. In a portion at least of the instrument now in use, a short line is run around the instrument, and a device employed for opening and closing the connection with the short line so as to send the current alternately through the instrument and through the short line around it, and thus produce the necessary pulsations by means of the difference in the length of the two lines, it being generally, or at least very commonly supposed that the current will take the shortest line to complete its circuit. To a certain extent this is true, but not in its fullest sense. A portion of the current will still pass through the coil, while the greater portion passes around it. But there is another difficulty involved in said construction, viz.: that where a current has a choice of lines it will operate much more sluggishly than if its line of communication is cut off in one direction when it is connected in the other.

The second part of my invention consists in providing the instrument with an additional set of magnets which work in an opposite direction, or rather, which move the lever in an opposite direction from the magnets commonly and ordinarily used, these magnets being in addition to those ordinarily employed, and in combining therewith and with the magnets ordinarily used. A device for shifting the direction of the current so that the current will alternately operate upon the magnets ordinarily used, and upon these additional magnets, thereby effecting the return of the lever by means of the current sent through these additional or supplementary magnets, by which the tension of the spring formerly used for that purpose can be very much reduced or even dispensed with altogether, by which means the necessary current is still further reduced, and a very small amount of electricity is rendered capable of operating the instrument satisfactorily.

The base on which the parts of the instrument are mounted is of wood. The coils are the same as in ordinary use in telegraphic instruments to operate the brake for opening and closing the circuit. These coils are supported by a standard, and are connected by a cross-bar at the end. Supports or brackets are attached to the bed, to which springs are attached. These brackets are connected at the top by a piece of wood or other insulating substance, and in this piece are inserted two pins, against which the springs rest when in their normal position. A vibrating lever carries the armature near the centre of said lever, and the pin at the top through which the circuit passes, and through one or the other of the springs, which said circuit is transmitted around or through the instrument as the case may be. The lever is thrown back to its normal position by the tension of the ordinary spring now in common use, and this tension is adjusted to suit the current upon the well known and common device, which consists of a pin set in a standard, around which pin a fine line, attached to the spring, is wound by means of a thumb head. The construction of the parts of this machine is such that the pin does not break its connection with one of its springs till it has effected a connection with the other, so that there is no break or surging of the current caused by absolute disconnection with the main line.

To accomplish this purpose and make the connection properly, and transmit it when desired, the pins are set at such a distance apart as to allow the springs to come sufficiently near to each other to both touch upon the pin, when it is in a central position; but when it is moved out of that central position it leaves one or the other of the springs, and sometimes is in connection with the other through which it transmits the whole current. The sweep of this lever is adjusted by means of thumb screws. To allow a greater range to the lever without allowing the springs to leave the pin far enough to make the current inefficient, I make the springs slightly twisted, but still sufficiently delicate that the current will bring them up flat against the stop. The connection from the battery over the line wire is made to a screw cup from which a wire connects with the coils or magnet, and carries the circuit through the coils, and this current is transmitted

by means of the wire, to the lever, and through it to one of the springs. The current of electricity is thus communicated to either bracket to which the wires are respectively attached. One of the wires is connected to the usual magnets in the sounding instrument and the other to the other magnets which are placed above the lever to withdraw it. I use ordinary magnets or coils for operating the sounding lever, with the exception that they are in this case arranged in a manner described in a patent granted to me May 24th, 1862, for an improvement in instruments for telegraphs. Two coils or magnets are placed in such a position that a current of electricity passed through them will have a tendency to draw the lever in an opposite direction to that in which it will be drawn by the ordinary magnets. These last-described magnets connect with and operate upon an armature attached to the lever, and by means of the attraction of the current when passed through these coils. The lever may be returned in an opposite position from that in which it is drawn by the magnets previously described. This armature also works upon the outer one of the magnets.

To secure a perfect adjustment of the magnets to be operated upon by the different coils, I attach an armature by an adjustable attachment, so that either end or both ends of this armature can be raised and secured in position to give the adjustment desired. This is done by means of adjusting screws passing through an auxiliary armature in combination with a screw.

By means of my improvement I not only perfectly insulate the ordinary coil from the current at the proper time for the return of the lever, but I also make the portion of the current thus cut off from those coils available to return the lever into its proper position, thereby reducing the tension applied to the adjustable spring or dispensing with said spring altogether, and consequently giving a much more audible stroke with the same current, or the same stroke with a much less current than could be done with the devices now used for the same purpose. It will be clear from what has been said, that when the armature is attached by the magnet so as to draw the lever against the spring, and thus break the connection with the spring, the whole current will be transmitted through the ordinary coils, which will attract that end of the lever downwards, and the current through the upper coils will be completely cut out, or switched off; but when the attraction ceases, and the lever falls back into its normal position, the connection with the line through the upper coils is renewed, and the line through the lower coils is perfectly broken, so that no electricity can possibly pass through them unless by the extraordinary operation of jumping. This being the case, not only leaves the sounding instrument perfectly free to open, but causes it to work more promptly and with less power than would otherwise be the case, but also the current passing through the upper coils causes it to open without depending upon the tension of the spring to do so. The result is, therefore, that the sounding lever is brought down with the whole force of the current unresisted by the tension of the spring. The spring represented is attached to this part of the instrument, being more designed to adjust the stroke than to simply effect the return of the lever. To obviate the possibility of the jumping of currents, as far as possible, I generally make the points of the thumb screws of wood, though they may be made of metal, but I prefer the material previously named. It is obvious that either part of this invention can be used without the other, though I prefer to use them together, as producing the best effect. One of the principal and important advantages of my invention is, that it enables me to entirely dispense with the local battery, and to work the sounder even on a long line by the line current alone, and, by the aid of certain improvements for which Letters Patent of the United States were granted to me the 24th day of May, 1864, to work an indenting register in like manner. It will be observed that the line connection is made directly with the repeating instrument, and when the armature is sufficiently attracted, the current of electricity is transmitted directly and without the intervention of a local battery to the magnets from which the current is conducted through the wire to the screw cup, to which the continuation of the line wire is attached. When the current is cut off by the breaking of the circuit, the electricity remaining in the line wire or derived from the atmosphere, being insufficient to overcome the tension of the spring, the connection through the wire and the magnets is broken and the current which remains then passes over a wire to the magnets and from them over a wire to which they are connected to a screw cup, from which it passes over the continuation of the line wire as before.

By combining with this construction and combination of parts such a registering instrument as is described in my above-mentioned patent of May 24, 1864, I am enabled to work the registering instrument on a very long line without a local battery, and without difficulty, thus not only saving the expense of the local battery, but the difference between the salary of an operator capable of reading by sound and that of one only capable of reading from a register.

Having thus fully described my said invention, I claim:

First, The combination of a lever connecting wires or their equivalent magnet, one or more magnets and the sounder or registering lever, in the manner hereinbefore described, and without the intervention of a local battery between the repeating or relay magnet, and the sounding or registering magnet; that is to say, in such a manner as to completely break the circuit through the magnet or magnets, by which the sounder or registering lever is operated, and the circuit around them, alternately, by means of the pulsations produced in the line current by the direct action of the operating key, substantially as herein set forth, and without changing the direction of the current upon the line wire or breaking the connection of the line by the action of the parts composing this combination.

Second, The combination of a shifting lever, springs, brackets, or their equivalent magnet or magnets and the sounder or registering lever, substantially in the manner hereinbefore described, that is to say, in such a manner as to continue the circuit in one of these directions till the connection in the other is fully made, and without changing the direction of the circuit or current through the line wire, or diverting it therefrom by its operation, substantially as and for the purpose hereinabove set forth.

Third, The combination of a magnet, the registering lever or sounder and a magnet or magnets, when the said magnets are so connected to the current through which the message is received from the operating key, that the pulsations of the said current are made to change its direction so as to send it through the upper and lower magnets alternately, thereby causing the same direction of current upon the line, to attract the sounder or registering lever in opposite directions, substantially as and for the purpose hereinbefore set forth.

GENERAL OFFICERS

OF THE

NATIONAL TELEGRAPHIC UNION.

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P. O. Box 8,120, St. Louis, Mo.

W. H. YOUNG, Vice-Pres.,
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KENNETH MCKENZIE, Cor. Sec.,
Care Pacific R. R., St. Louis, Mo.

DISTRICT PROCEEDINGS.

ST. JOSEPH DISTRICT.

The regular meeting of this District was held by Telegraph on the 12th ult. Ten members present. Meeting was called to order at 3 P. M. In the absence of the District Director, Mr. W. H. Wooding was unanimously chosen chairman. The line being down above St. Joseph, the members from Omaha, Nebraska City and Brownville were unable to participate in the proceedings.

Mr. McMurtrie, on behalf of the Committee appointed to examine into the qualifications of Mr. Platte, reported as follows: "Mr. Platte of Weston not being an operator of three years standing, is not eligible to membership of the N. T. U., Article VI, Section 1, Constitution."

On motion, the report was adopted unanimously.

On motion of the Secretary, it was resolved that two thirds of the members of this District shall constitute a quorum for the transaction of business.

No further business being offered, on motion of Mr. McMurtrie, the meeting adjourned.

S. P. PEABODY, Dist. Director.

E. B. McDILL, Dist. Secy.

LOUISVILLE DISTRICT.

Regular meeting held on the 6th ult. Thirteen members present. Some minor matters were disposed of. The resignation of H. B. Spencer was accepted, to take effect upon payment of his dues for the quarter ending March 31st, 1865, and ordered that he be notified to that effect. Some other business was transacted, showing that the members of the Louisville District still hold the interests of the National Telegraphic Union much at heart, and no chance of its dying out.

Adjourned.

W. M. DE GROVE, Dist. Director.

JAMES H. BARD, Dist. Secy.

ALBANY DISTRICT.

Regular meeting held on Tuesday, 7th ult. District Director in the chair. The following named gentlemen were elected members: F. D. Adams, W. A. Schutte, H. L. Martin and H. V. Shelly, all of Troy, New York. After the transaction of important business of local interest, meeting adjourned.

Regular meeting called to order by District Director at 9 30, 5th inst. Sixteen members present. District Director read a letter from the Director of Boston District, stating that Mr. P. B. Delaney, late of Worcester, Mass., now in the employ of the Western Union Line at Albany, was a member in good standing of the Boston District, and wished to be transferred to this District. Mr. D. presented his certificate and was enrolled in the Albany District. Adjourned.

A. D. WHIPPLE, District Director.

M. L. MORGAN, Dist. Secy.

PHILADELPHIA DISTRICT.

Regular meeting called for the 6th ult. No quorum present—adjourned to meet 1st Monday in April.

R. J. BLACK, Dist. Director.

G. W. PORTER, Dist. Secy.

OMAHA DISTRICT.

Regular meeting called to order 3 P. M., March 19th, by telegraph—District Director in the chair. Minutes of the last meeting read and approved. By request, Mr. E. Ruegger, of Cottonwood, took the chair, while Mr. Lehmer made a short report concerning the glad reception of this District into the Union and the cheering prospects for the future.

Mr. Lehmer proposed Messrs. Flenon Drake, Central City, Colorado; J. W. Morse, Council Bluffs, Iowa; George F. Drake, Des Moines, Iowa, and J. H. Briggs, Marshalltown, Iowa, for admission into this District. Accepted and sworn in.

Mr. Becher, of Columbus, moved a tax of fifty (50) cents be levied on each member of this District to defray necessary expenses of said District for books, &c.—lost. Mr. Drake, of Central City, moved a tax of seventy-five (75) cents be levied for the same purpose. Carried. On motion, meeting adjourned, subject to call of the District Director.

FRANK LEHMER, Dist. Director.

H. BRUNDAGE, Dist. Secy.

NEW YORK DISTRICT.

Regular meeting held evening of 4th inst—22 members present. Minutes of two previous meetings read and corrected. District Director read a communication from Mr. John Horn, Jr., containing a letter from Professor Morse, in which the Professor expressed a desire to become a contributor to the Library which this District contemplates purchasing.

District Treasurer's report was received, but in consequence of the resolution passed at the February meeting, requiring the names of members refusing or neg-

lecting to pay their fines, to be presented in the report, not having been complied with, it was returned as incomplete.

Reports of Committees called for: That on "Correspondence" reported "no progress." "Subscription Committee" reported "progress." That "on Room" reported nothing had been or could be done at present, in consequence of the excessive high rents. An informal statement was made by Mr. M. B. Lillis, Secretary of Ball Committee as to the results of the Ball, but as all the tickets had not been accounted for it was impossible to present a complete report at this meeting.

Mr. L. H. Smith moved that a committee of three be appointed to draw up resolutions, thanking Professor Morse for the kind offer made in his letter, also thanking Mr. John Horn, Jr. for his assistance and contributions to the Ball, and the Ball Committee for the praise-worthy manner in which their arrangements were made and carried out. Carried. Mr. Smith also moved that a committee, composed of the District Director and the members of the Ball Committee be appointed to consider and report at next meeting what disposition shall be made of the proceeds of the Ball after the same are paid to the District Treasurer, and before needed for a room and library. Carried.

He also moved, That the District assume the expense of printing By-Laws, and that the District Director be empowered to pay for the same out of the Ball fund.

No further business being offered, adjourned at 9 30.

W. STEINHOFF, Dist. Director.

D. R. DOWNER Dist. Secy.

PROF. MORSE'S LETTER.

NEW YORK, March 18, 1865.

MY DEAR SIR:

I return you my hearty thanks for the "Complimentary Ticket" to the First Annual Ball of the New York District of the National Telegraphic Union, and beg you to present my respects to the members for their politeness. I am, nevertheless, compelled to decline the invitation, as the stability of my health requires me at present to avoid evening assemblies.

I perceive your District contemplates a Library. When your rooms are prepared, I shall be happy to be a contributor to the alcoves.

Sincerely wishing you success in your laudable efforts at improvement,

I remain, dear sir,

Truly your obedient servant,

SAM'L F. B. MORSE.

To JOHN HORN, JR. Esq., Telegraph Office, 145 Broadway.

BOSTON DISTRICT.

Regular Meeting called to order at 8.45 P. M., 5th instant. District Director in the Chair. The roll was called. Upon motion of Mr. Roberts the reading of the minutes of the previous meeting was dispensed with.

The Director read a communication from Ex Director Leighton, stating the reasons for his apparent neglect of duty during his administration. After some discussion, it was moved that Mr. Leighton's report be accepted, which motion was lost by a nearly unanimous vote. A long discussion followed, and a motion was made that Mr. Leighton be requested to make a full report of monies received and paid out by him, and a general statement of the affairs of the District during his administration. Motion unanimously agreed to.

Mr. Bayres presented the names of Messrs. Park P. Allen, of Boston, B. F. Kimball, of Concord, N. H., and Andrew Bunton, of Manchester, N. H., for membership. They were unanimously elected.

Mr. McGee presented the name of Mr. E. J. Fullum, of Boston, for membership, who was also duly elected.

The Director here called the attention of the members to Article 6th, Sections 2d and 3d, of the Constitution which expressly provides that applicants for membership shall make their application to the Local Director of any office, who shall investigate the qualifications of such applicant and report the same to the District Director, who shall submit the name of the applicant, together with the Local Director's report, to a vote of the District. The Director hoped this article of the Constitution would be adhered to in the future.

Mr. McGee, from the Relief Committee, presented a report in the case of Mr. Thomas McKey, and the Secretary read a letter from the latter. The report was accepted. Mr. Albee moved a Committee of three be appointed by the Chair to look up and report upon the expediency of hiring a room in which to hold our meetings. Adopted. Messrs. Duxbury, Reese and Albee were appointed such committee. Mr. Duxbury resigned his position as member of the Relief Committee for the purpose of having a non-resident member on that committee, and Mr. Potter, of Fall River, was chosen to fill the vacancy. Mr. Labonte moved a vote of thanks be presented Mr. Wheeler for the able and satisfactory manner in which he has conducted the affairs of the District, after finding them in such a neglected and unsatisfactory condition. Unanimously agreed to. The meeting at 10 o'clock adjourned.

H. W. WHEELER, Dist. Director.

H. S. MARTIN, Dist. Secy.

DETROIT DISTRICT.

Meeting organized at 4 p. m., 2d inst., Mr. A. Fox in the Chair; nine members present.

On motion of Mr. Cowlam, the regular order of business was suspended in order to act upon Mr. Farnsworth's resignation, both as District Director and a member of the Union. On motion of Mr. Cowlam, seconded by Mr. Irvine, the resignation of Mr. Farnsworth was accepted.

Moved by A. Fox, and seconded by Mr. Irvine, that Mr. Priest, a member of the Chicago District be transferred to, and enrolled in this district. Motion carried unanimously.

There not being the required number present to choose a District Director, it was moved and seconded that the meeting do now adjourn until next Monday. Motion carried.

C. CORBETT, Dist. Secy.

SPECIAL MEETING.—Meeting organized at 4 p. m., 9th inst., Local Director in the chair—14 members present. Minutes of last meeting read and accepted. Mr. Priest nominated C. Corbett for District Director, who declined, and in return nominated Mr. Priest—nomination seconded by Mr. Winter. Mr. Kellogg nominated Mr. Cowlam, who withdrew in favor of Mr. Priest. A vote was taken on Mr. P.'s nomination—resulted as follows: Ayes 14, Noes none. Chair then announced the election of Mr. Priest by a unanimous vote of all present. On motion of Mr. C. Fox, seconded by Mr. Cowlam, the resignation of Mr. Maynard as a member of this District was accepted, he wishing to connect himself with the Chicago District, where he is now located. Other business of a local character was transacted, after which the meeting adjourned to meet again at the usual time.

T. W. PRIEST, *Dist. Director.*

C. CORBETT, *Dist. Secy.*

CHICAGO DISTRICT.

Regular meeting, April 2d. The District met pursuant to adjournment, and was called to order by the Director. Minutes of the last (February) meeting were read and approved.

The following named gentlemen were elected members of this District: T. Tyrrell, P. D. Cooper, C. Seaver, H. B. Thompson, G. C. York, R. G. Fox, Samuel Whipple, J. L. Martin, J. C. Bush, W. H. Wallace, and Jos. D. McNeil. Mr. Maynard, of the Detroit District, and Mr. Hawkins and Mr. Pierson, of the Nashville District, were admitted to membership in this District.

Mr. T. W. Priest, offered his resignation of the office of District Treasurer, having left the Chicago District and united with the Detroit District. His resignation was accepted, and a vote of thanks given him for the energy and interest shown by him in the affairs of the District. Mr. H. C. Depue was elected his successor by acclamation.

The committee appointed at the February meeting to investigate Mr. A. H. Seymour's official conduct while District Director, submitted the following report:

"In the opinion of your committee, Mr. A. H. Seymour, while Director, conducted the affairs of this District in a manner creditable to himself and advantageous to the District. To him more than to any other one member belongs the credit of organizing and pushing the District to its present state of prosperity. For the zeal and self-sacrificing spirit where the interests of the District are concerned, evinced by him, the activity displayed by him in the discharge of his duties, and the dignity and impartiality shown, as a presiding officer, your committee deem Mr. Seymour entitled to the thanks of the District, which they request be hereby tendered him."

On motion of Mr. Lee, the report was accepted and adopted unanimously.

After transacting some other business of minor importance, the District adjourned for one month.

E. B. CHANDLER, *Dist. Director.*

GEO. MAKLE, *Dist. Secy.*

BALTIMORE DISTRICT.

Meeting called to order at 3.35 P. M., 2d instant.. District Director in the Chair, —rolled called—17 members present—minutes of previous meeting read and approved. The following gentlemen were proposed and duly elected members of this District: W. H. Lancaster, Clarksburg, W. Va.; J. H. Nesbitt, Piedmont, do. The copy of N. Y. By-Laws being called for, a telegram from Mr. L. H. Smith was read, stating were not quite ready.

There being no further business, meeting adjourned at 4 p. m.

A. WILSON, JR. *Dist. Director.*

M. H. KERNER, *Dist. Secy.*

WASHINGTON DISTRICT.

The sixteenth regular meeting of this District was held on the evening of April 1st. Eleven new members were proposed and elected as follows: A. F. Childs, Alexandria, Va.; C. A. Runyan, Washington, D. C.; H. H. Bishop, do.; M. S. Andrews, Army of James; A. B. Talcott, Washington, D. C.; J. M. Sarvis, do.; Chas. G. Steuart, do.; J. H. Brown, do.; T. H. Brooke, do.; W. J. Dealy, Fort Monroe; George McGovern, Washington, D. C.

The following "official" was read for information:

"Sir: The expulsion of Mr. Macfeely, by your District, has been approved by the Executive Committee.

"(Signed)

C. W. HAMMOND, *Chairman Ex. Com. N. T. U.*

"Truly yours,

During the meeting the following resolutions were adopted:

That no notice shall be taken by this District of applications for membership, unless accompanied by the required initiation fee, which will be refunded should the application be rejected.

Appointing a committee of three to investigate the cases of members recently retired from the service of the American Telegraph Company, and report with recommendation for the action of this District, at the next meeting.

WM. H. H. CLARKE, *Dist. Director.*

FRED. W. ROYCE, *Dist. Secy.*

[The above are all the Proceedings we have received up to the time of going to press.—Ed.]

COMMUNICATION WITH ITALY.—A telegraphic wire established from Lyons to Turin, by mount Genevre, has just been given to correspondence. It opens a new road for despatches transmitted by the French-Italian frontier. In consequence of the adopted custom to class each office in comparison to those of the frontier points of which it is the nearest, the result of this new communication is a diminution from one fr. to 50c. in the tax of despatches issuing from certain French offices, and passing the French-Italian frontier.—*Annales Telegraphiques.*

ELECTRIC FIRE-ALARM.—The London *Technologist* says that there has been patented an apparatus which rings a bell when a room is heated above its natural temperature. It is simple, easily managed, and inclosed in a space of one cubic foot.

A List of Submarine Telegraph Cables in operation in the United States, Canada, and British Provinces.

(Continued.)

Date when laid.	From	To	No. of Conductors	Length of Cable in Statute Miles & Feet.
1863	Benwood, Va.	Ballaire, Ohio	1	1500 ft.
1863	St. Louis, Mo.	Across Mississippi River.	1	4.
1863	Alburg, Vt.	Swanton, Vt.	1	130
1863	Across Mississippi River.	Burlington, Iowa	3	4.
1863	do Mississippi River.	St. Louis, Mo.	3	3000
1863	St. Louis, Mo.	Across Mississippi River.	3	3000
1863	Across Mississippi River.	Burling' on, Iowa	3	4.
1863	do Hudson River.	Troy, N. Y.	3	300
1853	Portland, Me.	Channel in Harbor	3	4.
1856	Dubuque, Iowa	Across Mississippi River.	1	1.
1856	St. Annes, C.E.	Across River	6	4.
1861	Cape Girardeau, Mo.	do Mississippi River.	1	1.
1861	Mokalumne City, Cal.	do Mokal'e Cr.	1	350
1861	do do do.	do San Joaquin River.	1	500
1862	Across Hackensack.	River on M. & Essex R.R.	3	650
1862	do do	do do	3	650
1863	Boston, Mass.	Fort Warren, Boston H'br.	1	5.
1863	Beaufort, S. C.	Paris Island, S. C. (A. C.)	1	1.
1863	Paris Island, do.	Hilton Head, do. (B. R.)	1	8.
1863	Tybee Island, do.	Braddock's Point, S. C.	1	8.
1863	Fort Pulaski, do.	Tybee, do.	1	4.
1863	Morris Island, do.	Folly Island, do.	1	1.
1863	Fort Jackson, La.	Fort St. Philip, La.	1	20.
1863	Troy, N. Y.	Across Hudson River	3	300
1863	Fort Point, Cal.	Lime Point, Col.	1	14.
1863	Across Hackensack.	River on the N. J. Rail'r'd	3	400
1863	do do	do do do	3	200
1863	do do	do do do	3	275
1863	do do	do do do	3	275
1864	do do	River on M. & Essex R. R.	3	250
1864	St. Louis, Mo.	Across Mississippi River.	3	3000
1864	Rondout, N. Y.	do Hudson River	1	500
1864	Across Hudson River.	Cold Spring, N. Y.	1	4.
1864	do do	at Albany, N.Y.	3	1200
1864	Across Hudson River.	Across Hudson River.	3	1200
1864	at Troy, N. Y.	at Troy, N. Y.	3	300
1864	Across Hudson River.	Across Hudson River.	3	300
1864	Troy, N. Y.	at Troy, N. Y.	3	300
1864	do	do	3	300
1864	Across Hudson River.	Troy, N. Y.	3	300
1864	Troy, N. Y.	Across Hudson River.	3	300
1864	do	Troy, N. Y.	3	300
1864	do	do	3	300
1864	do	do	3	300
1864	do	do	3	300
1864	Montreal, C. E.	St. Lawrence R'v'r.	1	14.
1864	St. Louis, Mo.	do Mississippi River.	3	4.
1864	Troy, N. Y.	do Hudson River.	6	230
1864	Hoboken, N. J.	New York City	3	1.
1864	New York City	Hoboken, N. J.	3	1.
1864	New York City	do do	3	1.
1864	Buffalo, N. Y.	Fort Erie, C. W.	3	4.
1864	Detroit, Mich.	Windsor, C. W.	3	4.
1865	Cincinnati, Ohio.	Across Ohio River	3	2800
1865	Across Culvert.	at Trenton, N. J.	1	264

(To be Continued.)

THE TELEGRAPHER.—We are not guilty of boring our readers with the many very complimentary notices which the press everywhere bestow upon our little paper, but the following from the Bloomington (Ill.) *Pantograph* is too good to be lost, and we will, therefore be pardoned for printing it:

"We have received several numbers of *The Telegrapher*, published by the members of the National Telegraphic Union. It is invaluable for telegraph men, being filled with articles that are of immense importance to the profession. *The paper is the most perfect in its mechanical execution of any we have ever seen*, and this is saying considerable."

We heartily thank our COTEMPORARY FOR THE ABOVE GENEROUS COMPLIMENT.

PERSONAL.—On Friday last, 15th ult., Frank Drummond, telegraphic reporter of the House of Assembly, obtained a first-class certificate at the Quebec Military School, after undergoing a highly creditable examination. Mr. Drummond's cadetship extended only over a period of six weeks and four days, but owing to sickness and other causes the actual time occupied by him in attendance at drill was five weeks and two days. This, we believe, is the shortest period in which any cadet has, as yet, succeeded in obtaining a first-class certificate. To Mr. Drummond belongs the honor of first organizing the Victoria Rifles, now doing frontier duty at Windsor. He was afterwards attached to the telegraphic corps of the Federal Army of the Potomac, and was taken prisoner after the first battle of Bull's Run, by Stonewall Jackson, and was kept prisoner in the Libby, at Richmond, for several months, until finally exchanged.—*Quebec News.*



MONDAY, APRIL 25, 1865.

EXTENSION.

It has been proved that long lines of but one wire each, between two great commercial centers, such as London and Paris, New York and San Francisco, soon become unequal to the great amount of business which so quickly springs up. It has also been proved that the commercial public care little for the expense so long as they abridge time, thus in anticipating the mails at such distant points, thousands of dollars are made and saved when, under other circumstances, a failure or loss would occur. A remarkable feature of the business from this city to California is, that more than between any other two points in the United States, the messages run over ten words, or, in other words, more messages cost the sender from ten dollars and upwards than are paid the exact tariff. This arises from the great importance of full instructions being conveyed, which gives to these telegrams more the character of a letter than usual. Economy forces people to be brief in their telegrams, therefore despatches are usually wonderfully laconic, leaving the receiver the unpleasant duty of supplying the small words to make sense.

Now that the great rebellion is so near its end, we think it the duty of the great telegraphic kings to prepare for greater facilities of communication with heretofore inaccessible points. We urge this for their own profit as well as for the good of the whole world. These new lines must have good connections with important places or else they will die for want of support. The New York, Newfoundland, and London line, running from Sackville, New Brunswick, to St. Johns, Newfoundland, was constructed to be a connecting link between the Atlantic cable, when laid, and the lines in the United States. This line has had a precarious existence, built as it is, through a wild and sparsely settled country, it has had to depend upon the business of its chief and only city in that island for its existence aided for a time by the chance success of the despatch boat intercepting an European steamer off Cape Race. This support owing to the almost constant fog and heavy weather has nearly, if not quite failed. The first Atlantic cable had such a brief existence, its support could not be realized, should, however, the attempt to lay the new cable prove successful, and its existence prolonged for a reasonable length of time, the dying embers of the Newfoundland line will be fanned into a blaze, for it has been decided that unless the European connection can be speedily made the line must be discontinued. On the other hand, the line to California is fast proving itself inadequate to the business pressed upon it, and arrangements are now being made for the stringing of another wire, and we learn another company are about to commence erecting another—an opposition line. The success of this line, passing as it does, for hundreds of miles through a sparsely settled country, is owing to the fact that it brings two very important commercial centers into hourly and continuous communication.

Our object in writing this article is to direct attention to, and urge the importance of connecting, by means of submarine cables, the important points of the many West India Islands.

In 1857 and '8 the present American Company, through its very efficient General Superintendent, the late James Eddy, Esq., sought to obtain permission from Her Christian Majesty, Isabella II, Queen of Spain, to lay a cable from Savannah, Ga., or Pensacola, Fla., via Key West, to Havana, Cuba. Permission was not granted, because a similar application had been made by a Spanish Company, to whom prior right would be granted. Nothing, however, had been done previous to the war by this foreign company, and the turmoil for the last four years put an end to any revival of the project, but now that "Lee has surrendered," an opportunity is offered to revive the undertaking. Not many months will pass before the wires of the American Company will again connect the Southern seaboard cities with their Northern sisters; but as this company will soon be swallowed in the capacious maw of the stupendous corporation which makes a monopoly of telegraphing, the duty will fall on this last named company to complete the work commenced eight years since by the former.

The first idea was to submerge a cable from Savannah to Key West, and thence to Havana, but as Key West is not of much commercial importance, and the route so short, such a stoppage would be unnecessary. The same may be said of Nassau, now that blockade-running is slightly non-paying about these days. We would suggest Pensacola or Tallahassee, Fla., as the starting point from the States, as the route would be short (500 miles) which would render any intermediate stoppage unnecessary, and, if we remember rightly, the cable would find an easy bed of sand whereon to lie. At Havana, connection could be made with one or both of the printing lines running throughout the Island of Cuba.

From Santiago de Cuba to St. Ann, Jamaica, a distance of 140 miles, another cable could be laid, to connect at the latter place with land lines to Spanishtown, and Kingston. From Morant Point, Jamaica, another cable, 130 miles in length, might be laid to Tiburon, Hayti; to connect with interior lines to Port au Prince and San Domingo, and from thence to Porto Rico, St. Thomas, Martinique Barba does, and Georgetown, Demarara. All of these stretches are short, no one of them extending 500 miles, the most of them 200, and less. It is our opinion, the sugar, coffee, and foreign fruit interests would well support these new connections.

and if the Atlantic cable succeeds, their value would be incalculable. Of course, the cable to Havana would pay better than perhaps, all the others put together; but each would, directly, or indirectly, more than pay their cost for construction and maintenance. Submarine connection with Mexico via Yucatan and the Isthmus, would soon follow these more important lines. We trust a movement to this end will soon be made, as no time should be lost, now telegraphing is taking such rapid strides.

We present to our readers in this issue the long promised heading for this paper, which will, we trust, please the most exacting. The design is by Major Frank Pope, who has again placed us under obligations, both to his great artistic talent and his generosity. The attempt to make this heading symbolical of telegraphy will be readily seen and acknowledged as a success. The great joy of the "Owl" in the vignette, while sending his last message at midnight, can be readily understood by those whose misfortune it is to see the day die and come to life again, as they weary drag themselves home from a night's exhausting work. The scene at the right is the interior of an office, containing those wonders of telegraphy, the printing instruments. Those who have witnessed the excitement caused by news from the war, can understand the pictured scene at the left.

When we reprint the back numbers of this paper, which we expect to do within the next two months, this heading will be used, as also the one on this page. The reprints will contain all the corrections and additions which were, through haste, made and omitted.

The diagram of Clark's repeater, omitted in our last, came to hand more than a week after the paper was issued, having been detained by the great flood. We shall probably print it, with a description, in our next.

The series of articles upon "The Telegraphic Repeater," which has occupied the first page of several numbers of this paper, are brought to a close in this issue. The writer of them, (Major Pope), has done a signal service to our readers, the telegraphic public, the inventors, and ourselves. Never before has the subject been printed, and *The Telegrapher* is the first publication which has ever produced a diagram of these most valuable inventions. These diagrams were put upon the wood by Major Pope, who has, besides all this, contributed freely to other columns of this paper, and will be its correspondent from the Collins' Overland Expedition, whence he sailed in company with Mr. Cran, on the 3d instant, on the steamship Ariel, via the Isthmus; these gentlemen being the last detachment of the great expedition, Mr. Kinnicut and his party having departed on the 20th ult., *via* Nicaragua.

We shall commence at an early day, probably in our next number, to prepare the minds of the members of the Union for the next Convention of this association, to be held in Chicago next September. Our object will be to have the best men of each District selected as delegates, and to have them all well prepared for the work to be done, that it may be done thoroughly and expeditiously. We shall undertake to point out what is needed for the future welfare of the Union, what amendments, if any, should be made to the Constitution and By laws, and what will be expected of the Convention, which must, in many respects, be an improvement upon the two previous ones.

The readers of *The Telegrapher* will probably remember an account of a "Sad Accident" published in our January number, to Mr. Joseph Fowles, an operator in the U. S. Co.'s office, in Palmyra, N. Y. This young man is but twenty years old and has lain helpless upon his back, for fourteen weeks, at Graham's Hotel, in Lyons, and is likely to lie there for months longer. He is but a shadow of his former self. His mother is with him, and we are informed that the ladies of Lyons are very kind to him, supplying him with delicacies to tempt his appetite. He also has the best medical advice the place affords. He is now in a fair way of recovery. We sincerely hope the operators along the line of the Central Railroad, see to it, that he wants for nothing that will make him comfortable.

To California we send greeting. She has stretched her golden arm over the great mountains, and across the plains, to shake warmly by the hand her sisters of the Atlantic, who will warmly greet her. On the 9th instant, the operators in the Sacramento office met and formed a District, electing Mr. George Kennan as their Director. This is glorious good news. Our band of brotherhood has spanned the Continent, and soon we hope to chronicle the formation of Districts in the South. Applications have already been made for instructions for organizing in Charleston.

We have information from a reliable source that the students of a Commercial Telegraphic College are out with a circular, denouncing the institution as a swindle. They say they were promised to be made competent operators in three months, but find they must learn another branch of the business when entering an office before they are fully competent to work a wire. If it is true such a circular has been circulated, it is proof of the correctness of our argument against these Commercial Colleges attempting to teach telegraphy. We shall endeavor to procure a copy of this circular.

The life of a telegraph operator with the armies of the United States when upon a campaign or laying seige to a town, must have many incidents worth relating. We extend an invitation to any of the friends or readers of *The Telegrapher* now with the armies to write us some of their experiences.

On the morning of the 3d instant, immediately after the occupation of Richmond, by the Union troops, the War Department were put in telegraphic communication with that city. This accounts for the early hour which we were apprized of the fact. Gen. Weitzel's troops marched into the city at 8.15 that morning, and the news was in this city before 10 o'clock. But one hour and three quarters had elapsed before the people in the loyal States knew of this great event. Pretty quick work, "owing to the price of gold."

AN ELECTRICAL CONDUCTOR.—PHIL. SHERIDAN!

TELEGRAPHIC MISCELLANEA.

LOOK AT THE TOP of the first column, last page of this issue.

WE CONSIDER it our simple duty to place on RECORD in these pages the great facts that Richmond—the focus of the great rebellion—was captured on the 3rd by the Federal troops; that Lee surrendered the Army of Northern Virginia to Lt. Gen. Grant on the 9th; and that ABRAHAM LINCOLN, President of the United States, was ASSASSINATED on the evening of the 14th instant, at Ford's Theatre, Washington.

THE BALL.—The brief time and space at our command prevented us from giving an extended notice of the Ball of the New York District as its success demanded; we will therefore be pardoned for again referring to the subject.

It was generally conceded by impartial judges that the gay company assembled were the most orderly, quiet, social, and happy party that ever assembled within the walls of Irving Hall. Not the slightest incident occurred upon the floor to mar the festivities, which were not ended until 5 A. M., the 28th, and last dance—a quadrille—was participated in by but one set.

No expense or pains were spared to make this first entertainment a complete success, socially. The Hall was beautifully decorated by Maximilian, the celebrated decorator of this city. The walls, both above and below the gallery, were festooned with flags and red, white and blue bunting. In the centre, at the front of the stage, was a bronze medallion portrait of Professor Morse; and in front, and near it, were cables, repeaters, and the emblems of our craft. Portraits of many distinguished persons in the telegraphic world adorned the walls under the galleries, kindly loaned by Mr. John Horn, Jr. Among the distinguished persons present, not mentioned before, were a sister of the Hon. James T. Brady, Johanna Bos, the eminent artist, and family, Karl Muller, the sculptor, Dr. L. Bradley, the inventor of a peculiar Relay. As wrong inferences have been, and may be drawn from the absence of Col. Sandford and Gen. Lefferts, we wish to state that the former was detained in Washington by business, and the latter was unable to return to town in season to be present. The entertainment was in accordance with their views, and they heartily wished for its success.

Among the many telegraphers present, we noticed five of the American Company's lady operators, (one of whom danced every set until she retired at half past four,) Miss Lewis, Miss Snow, Miss Avery, Miss Hinds, and Miss Turner; and among the gentlemen, Mr. W. O. Lewis, Superintendent of the Sandy Hook line, Mr. M. V. B. Finch, Mr. M. S. Roberts, Mr. A. S. Brown, Managers of the Am., U. S. and W. U. Company's offices respectively, Mr. H. H. Ward, Sup't Am. Co's City Lines, Mr. B. F. Ely, of the W. U., and A. S. Downer of the Am. Co's offices. Among the telegraphers from other cities, we noticed Mr. Makle of Chicago, Messrs. Bliss and Albee of Boston, and Mr. Wright of Trenton.

It was remarked that but a few of the W. U. and U. S. operators of this city were present: an absence which we hope not to be obliged to chronicle should the entertainment be repeated next winter.

Few of the members of this District thought the proceeds would pay expenses, and a less number thought the receipts would exceed the expenses, and very many expected the ball would prove a failure in a financial, if not a social point of view, but we are very happy to state the following facts: Between 300 and 400 tickets were sold, and after paying all expenses, the committee will turn into the Treasury of this District over \$270.

RUMOR hath it that the Am. and W. U. Co's are to be consolidated. It was currently reported this was to take effect on the 1st instant, but we are reliably informed that, although it is a foregone conclusion, its consummation will not take place before the 1st prox., if so early. We sincerely hope the W. U. Co. will not shoulder the straw which will break its back. Their capital stock, which is now over \$22,000,000, will thus be increased to nearly \$40,000,000, including 10,000,000 of the Russian Extension and other lines.

THE BANKERS' AND BROKERS' LINE.—It has long been known that a line of four wires has been constructed within the past year between Washington and this city bearing the above title, but so secretly has the work been carried on that we have been unable, through many inquiries, to learn anything of importance in reference to it, but quite recently a friend has furnished us with the following:

"PROSPECTUS OF THE BANKERS' AND BROKERS' TELEGRAPH CO.—Incorporated under the laws of the State of New York, New Jersey, Maryland and the District of Columbia, and by special Acts of the Legislature of Pennsylvania, May, 1864. Authorized capital, \$1,050,000, divided into 42,000 shares of \$25 each."

"The officers of the Company are, Enoch Pratt, President; J. S. Rittenhouse, Secretary and Treasurer; H. H. Wainwright, General Superintendent.

"The Corporation will own over Five Hundred and Fifty Miles of Telegraph Lines constructed in the best manner and of the best materials. Galvanized wire of superior quality will be used throughout the entire distance of the lines, and the batteries, instruments, and all other accessories, will be such as to meet the requirements of the business to be done by the Company.

"In erecting the lines, every precaution will be taken to insure against accidents, which always cause vexatious delays, and, where it is necessary to cross rivers, such as the Hudson, Delaware, &c., an extra number of conducting cables will be sunk; so that if one or more should be dragged up or injured by a passing vessel, there will still be enough left to prevent the business of the line from stopping while the necessary repairs are made. In the cities of New York, Philadelphia, Baltimore and Washington, the Company will have a complete system of City lines, and will have in each city from six to ten offices, in position where they will be most likely to command business; there will also be "way" offices established at the principal intermediate points, and the routes will be through some of the largest interior towns of Pennsylvania, New Jersey and Maryland.

"The Bankers' and Brokers' Lines will have direct connection with three other lines, one of which, extending from Baltimore to Hagerstown, Md., is now nearly completed and already doing a profitable business, and the other two will be erected in a short time, and will bring business to it from the most flourishing towns of Delaware and Maryland on the one side, and on the other it will have direct connection and communication with nearly every city in the interior of Pennsylvania, such as Harrisburg, Chambersburg, Pittsburg, and many others, also the Oil Regions, and from these with the entire Western States.

"Arrangements are now made with these other companies by which the Bankers' and Brokers' Lines will receive all business coming over their lines intended for any points on its routes or beyond.

"Four wires will be put up and in operation at once, and others will be added as the business of the Company increases. A moderate estimate of the business that the Company can command will enable it to earn annually 18 to 20 per cent. on its capital, and, if these wires are worked to their full capacity, it can earn over 75 per cent. per annum.

"As two separate routes are used, the Company really owns two lines, which could at any time, if deemed advisable, be worked as if they belonged to different organizations.

"This Company can command after business hours, a large portion of 'Press' business, and it is proposed in each of the large cities to keep its principal offices open all night, and a force of operators on duty.

"In recommending the lines of this Company to the consideration of the business community, and especially as a medium through which Banks, Bankers and Brokers can transact business with each other, it may be well to add that in the management of the Corporation is centered the experience of many years, almost daily heavy transactions with other Companies, and a full knowledge of what is required to give satisfaction, especially to those whose business is often affected to the extent of hundreds, sometimes thousands of dollars, through delays, incompetency, or neglect.

"The Company is now erecting two entire new lines by different routes throughout the whole distance from New York to Washington; and they are being built and equipped in the most substantial manner, and no expense will be spared to make these lines the most thoroughly constructed, and the most efficient and reliable of any now in use. The Company will also have an ample Cash working Capital."

We are informed these lines will commence operations in July next. They are, without doubt, the best constructed lines in this country, and if conducted on first class principles, as we are reliably informed they will be, we bespeak for the Company pecuniary success, and a great telegraphic achievement. The poles of this company, which stand sentinel-like in Park Row and Broadway, are beauties, and the wires are well strung. These lines are to connect with the lines which the Hon. Henry O'Reilly is about to build.

WE ARE INFORMED, but cannot vouch for the truth of the statement, that the U. S. Co. have commenced constructing a line west of St. Louis, with the intention of continuing it to the Pacific coast.

The W. U. Co. commenced the operation of their wires along the Erie Railroad to Buffalo and Cleveland immediately after the subsidence of the great flood, about the 1st instant.

THE AMERICAN CO. are constructing a line over the Vermont and Massachusetts Railroad from Brattleboro, Vt., to Fitchburg, Mass.

THE MONTREAL TELEGRAPH CO. opened an office on the 6th inst. in the St. Lawrence Hall Hotel, in Montreal, for the convenience of the travelling community and the brokers at the evening board.

MR. WILLIAM HENRY CRAN, who sailed for California with Major Pope, on the 3d inst., was the only lucky telegrapher of the many who applied for a position in the Russian telegraph expedition. He was formerly employed by the Canada Grand Trunk Railway Company, at different stations, as telegraph operator and ticket agent, and more recently by the Western Union Company in the "Corn Exchange" office, in this city.

MR. GEO. BAKER, the operator who, deserting Richmond, brought the first news of the fall of Savannah to Gen. Grant, has applied to be sent back to the former place as manager of the American Company's office.

The *Nord* has the following telegram from St. Petersburg, dated March 28th: "The convention with the American society for the electric line which is to connect with America was signed. The operations are to commence immediately."

WE RETURN our thanks to Mr. W. H. Rose, of London, for a copy of the *Daily Telegraph*, containing a detailed account of the Indian Telegraph Line just completed.

WE HAVE RECEIVED a copy of No. 50, Vol. 1, of *The Convalescent*, a small, poorly printed sheet, published by the convalescents in the General Hospital at Jefferson Barracks, Mo. This little paper is no doubt a source of great entertainment to the sick soldiers, but we pity their eyes after its perusal.

RESIGNED.—Mr. Walter Steinhoff, Director of the New York District, his position in the W. U. Company's office in this city and has taken the management of the U. S. Company's "Corn Exchange office." Mr. James Patrick, Treasurer of the National Telegraphic Union, his position as manager of the American Company's "Gold Board office," Philadelphia, and taken the management of the U. S. Company's office in that city.

PROMOTED.—*District of Nova Scotia*.—To be Assistant Superintendent, Alexander E. Hoyt.

To be Manager of the American Telegraph Company, and of the New York, Newfoundland and London Telegraph Company, at Port Hood, Thomas Doran, vice Hoyt, promoted.

To be Manager at Pictou, FitzHugh McPhie, vice Doran, promoted.

QUOTATIONS OF TELEGRAPH STOCK.

CORRECTED BY JOHN HORNER, CASHIER, AMERICAN TELEGRAPH OFFICE, NEW YORK.

Western Union.....	\$100 shares	... par.	Montreal,.....	\$100 shares, 131 @ 132 gold
American.....	"	170	Nova Scotia,....	20 "
Russian Extension,	"	35	Vt. & Boston,....	50 "
Ill. and Mies,....	\$50	... par	Troy & Can. Junct	50 "
East India,.....	"	..	Maine.....	50 "
United States.....	\$100	"	by the Company.....	98

A NEW INSULATOR.—We have been shown specimens of an insulator recently invented by Mr. Robert Dodwell, Consulting Telegraph Engineer, of No. 4 Blue Boar Court, Manchester, England. They are porcelain and compressed by hydraulic pressure, and glazed, with a galvanized bolt fastened in the center from the underside with plaster Paris. This bolt has a screw and nut on the end to fasten to the brackets upon the poles. The expansion of this iron bolt cannot break the insulator, nor can they be broken with a hammer without great violence. They are cone shaped, of three sizes, and are an approach to the "dead air chamber" of the Ward insulator. The inventor says he is shipping them by thousands to India, Australia and New Zealand, where they supersede all others. The prices are as follows: Single cups, tenpence; double cups, one shilling and three-pence each, delivered alongside ship at Liverpool. Their cost will prevent their use in this country unless they prove to be superior to any we now have.

A LETTER, received in this city by a friend, from Prof. David E. Hughes, dated Paris, France, 28th February, 1865, says: "I have been successful in Europe, and my telegraph instrument is now working on all the important lines of France, (100 instruments,) Italy also. England has just commenced with ten instruments at London, Liverpool, Glasgow, &c., &c."

The instrument has become entirely changed from those you saw in New York, and it is now very perfect. For instance, the Emperor's discourse this month, at the opening of the Corps Legislatif, containing 1780 words, was transmitted by a single clerk in 30 minutes, without abbreviation, being 60 words per minute. I have received *The Telegrapher*, which I find very interesting. Please remember me kindly to all my old telegraphic friends in New York."

THE RUSSO-AMERICAN TELEGRAPH.—The United States steamer Shubrick, with Col Bulkley and party of the Russian-American Telegraph, left New Winchester, British Columbia, for Sitka, where he goes to consult with the Governor of Russian-America, on the 18th ult. Col. B. was cordially received by the Governor of British Columbia, who took great interest in the enterprise, and promised every assistance in his power in the way of surveying routes, opening roads, etc. The work is to be pushed rapidly forward. The submarine cable was laid across Frazer River on the 21st, and the line between San Francisco and New Westminster will soon be completed. At the latest dates only twenty miles remained to be finished.

THE ATLANTIC TELEGRAPH—Capt. James Anderson of the Canard mail steamer China has been appointed to command the Great Eastern during the laying of the Atlantic Telegraph cable.

The Great Eastern will sail from Valencia, Ireland, about the 1st of July, and may be expected at Heart's Content, Trinity Bay, by the middle of that month.

There were 1,862 nautical miles of cable completed on the 21st of March, and the whole 2,300 miles will be made and on board of the Great Eastern in May.

The Admiralty have agreed to order two powerful steamers of the Royal Navy to accompany the Great Eastern from Ireland to Newfoundland, and also to direct Sir James Hope, to afford such assistance on the approach of the expedition to Newfoundland, as may be in his power. The French Government will probably send one or two steamers, and it is hoped the United States Government will do the same. It is confidently expected that Europe and America will be in telegraphic communication before the 20th of July.

THE TELEGRAPH IN MOROCCO.—The recent introduction of the electric telegraph into Morocco was vehemently opposed by many who looked at the progress of the work with religious horror. The Emperor threatened with death any person who should injure the apparatus, but the inhabitants of the little village of Mahovany, nevertheless, cut down the wires. The irate Emperor straitway had the place surrounded by his troops, and the heads of ten prominent citizens were forthwith cut off and fixed on the telegraph poles, as an awful warning.

THE INDIAN TELEGRAPH.—The doubts regarding the continued efficiency of the new telegraph line to India were relieved on the 10th by the receipt of numerous messages from Bombay and Calcutta to the 6th of March. Their contents were private, but one of them acknowledged a London telegram of the 4th. The delays were on the land lines.

A LARGE Time Ball, some two or three feet in diameter, was erected by the Harbor Commissioners, last summer, in Montreal, for the benefit of Mariners, on the roof of one of the highest buildings facing the river. It is placed so that it can be seen by any vessel in the harbor. The apparatus is of English manufacture, and was dropped precisely at noon every day by telegraph from the Observatory, under the charge of Dr. C. L. Smallwood. As soon as the navigation closes it becomes useless. Mr. O. S. Wood, the General Superintendent of the Montreal Telegraph Co. has also had made for him a small Time Ball by Chubbuck, of Utica. It has been put up in front of the building between two large stone pillars, where merchants, and the public generally, meet to get the correct time. There is probably no more substantially built lines of telegraph on this continent than those erected by the Montreal Telegraph Company, under the able engineering of Mr. Jas. Poutie, who has been for many years connected with this company. The best of their poles, before being set, are now preserved in the following manner. A hole is bored in a diagonal manner with an inch and a half augur almost through the poles so that half will be above the ground and half below. The hole is then filled with coarse salt, then plugged tight with a red cedar pin. The large poles in the city of Montreal are about 45 feet long and capable of carrying 25 wires.

The following new lines will be built by the Montreal Telegraph Company this summer: Toronto to Collingwood, 96 miles; Montreal to Richmond, 77 do.; Toronto to Buffalo via Stratford, 210 miles; Montreal to Ottawa City, 123 do.; Richland to Oswego, N. Y., 27 do.; Three Rivers to Arthabaska, 37 do.; Berthier to Industrie, 17 do.; Richibucto, N. B., to Sackville, 70 do.; Buffalo to Sarnia, C. W., 210 do.; Watertown to Oswego and back to Richland, 91.—Total, 960 miles.

U. S. TELEGRAPH COMPANY.—The managers and agents of this popular line are determined to maintain the enviable reputation the Company has acquired for accuracy and promptitude in the discharge of business. Their office in Lyons, (managed by Mr. Halstead, an obliging and competent operator), is open at the usual business hours, and is, we are told, receiving a very handsome patronage. The office is in the brick building just north of the *Republican* office.—*Lyons Republican*.

THE GREAT FLOOD.—Although application was made, we have been unable to learn, in time for this issue, the particulars of the damage to the several telegraph lines by the recent freshet. The Erie Railroad line was damaged to the greatest extent as to distance. At least one third of it, for a distance of 60 miles, was almost completely carried away. The W. U. Company's line along the Mohawk valley suffered extensively. In one place four miles of line were swept away completely, and for a distance of over 30 miles the damage was more or less extensive. The U. S. Company's line along the route suffered less. The Pennsylvania division of the W. U. Co. suffered principally along the banks of the Susquehanna from Columbia to Harrisburg, a distance of 30 miles. A letter from the Superintendent, Mr. D. Brooks, says: "In one place all the poles were carried away for three miles, and in others, some of the poles were standing. The water in many places was above the tops of the poles, but the poles were carried away only where the current was strong and the drift wood accumulated. Probably one-third of the poles, or ten miles of the line between these points, was swept away and carried down the river to the Chesapeake. Above Harrisburg the poles were, in some places entirely submerged, but the force of the current was broken by the railroad embankment. Upon the subsidence of the water the wires were found in order. Along the Juniata there was less damage; perhaps a mile of line carried away altogether. The set of wires via Reading, from Philadelphia to Harrisburg, were not interrupted, and the same can be said of those from the latter place to Pittsburgh via Chambersburg. We were interrupted in communication with Pittsburgh entirely for about six hours only."

All the cables of the American Company across the Susquehanna, at Havre de Grace, Md., were torn assunder. This was the principal damage done to this Company's wires. The U. S. Company's wire, which crossed on a high bridge above Havre de Grace, were carried away with seven spans of the bridge. The interruption to communication west and south was general for about a week.

NEW OFFICES OPENED BY THE U. S.—Marietta, Ohio; Morrow, do.; Clarksville, do.; Wilmington, do.; New Holland, do.; Washington, do.; Circleville, do.; Lancaster, do.; Bremen, do.; New Lexington, do.; Belvidere, New Jersey; Phillipsburg, do.; Milford, do.; Delaware, do.; Greensburg, do.; Easton, Pa. By the Am. Co.—Lancaster, Mass., Newton Centre, Conn.

By the steamship New York, from Southampton on the 29th of March, we learn, that Mr. Cyrus W. Field, of New York, left London for Suez, on Saturday, 25th ult. to be present at the opening of the canal through the Isthmus.

PATENT CLAIMS.—46,542.—**Signal Box for Fire Alarms.**—Charles E. Carpenter Providence, R. I.

I claim a signal box, provided with an aperture to admit the finger, and having a diaphragm of paper or other suitable material extended across the inner mouth of the aperture, the position of the diaphragm being such that the signal knob or lever cannot be moved without breaking the paper.

47,141.—**INSULATOR FOR TELEGRAPH.**—S. F. Van Choate, N. Y. City.—I claim, 1st. The combination of the cavity, A, face-plate, D, and pin-hook, C, for the purposes set forth.

2. The wooden bracket, B, plate, D, and hook, C, as above combined, when coated with the composition as above, and for the purposes set forth.

47,144.—**ELECTRO-MAGNETIC MUSICAL INSTRUMENT.**—Lorenzo Wesson, Chillicothe, Ohio.—I claim, 1st. An electro-magnet apparatus for playing music with variable power or expression, by automatically varying the battery power exerted on the magnets to accord with the number of magnets in use, or with the strength of sound required in any manner, substantially as set forth.

2d. A music-board, B, provided with independent movable type acting upon or constituting circuit breakers or circuit closers, to regulate or govern the true power or length of sounds produced by means of electro-magnetism.

3d. The key-board, C, connected with a series of magnets, and constructed substantially as set forth, with two or more circuits, by which any of the said magnets may be put in action at will.

4th. In combination with the key-board, C, and series of magnets, I claim the levers, G, plates, I, and wires, J, all arranged as described, and adapted to operate substantially as and for the purposes set forth.

5th. In combination with the electro-magnets, E, E', E", music-board, B, and additional battery E, I claim the lever, G, operating substantially as described, to open communication between the additional battery and magnets when required.

THE ELECTRIC LIGHT.—Mons. Dumas, the chemist, in a report on the application of electricity, says that the most important application of electricity to lightning has been made at Havre, an electric light having been placed on Cape la Heve, near a lighthouse of the first order on the old plans. The old light was equal to 600, and the electric light is equal to 3,000 carcel lamps; and for an equal light the oil lamp cost 3½ times more than the electric light.—*Telegraphic Journal*.

THE EDITOR OF *THE TELEGRAPHER* will execute commissions in Printing, Blank-books and Stationary, also Steinway's Pianos, at a reasonable percentage.

MARRIED.

At Pittsburg, Pa., by the Rev. John Douglas, Mr. Samuel F. Paisley, to Miss Louise, daughter of J. M. Fass, Esq., all of Pittsburg.

OBITUARY.

A wide circle of friends and acquaintances will regret to read the announcement of the death, on Wednesday morning, at Baltimore, of Zerah Barnum, Esq., long connected with the hotel that bore his name in that city. Mr. Barnum was a native of Pennsylvania, and we believe, by profession a civil engineer. He possessed fine business capacities, and after realizing a handsome fortune in the management of his hotel, he relinquished it, to devote his time, as President, to the resuscitation of the Baltimore Central Railroad, a task that he soon and effectively accomplished. He was also among the earliest, in connection with Hon. Amos Kendall, Wm. M. Swain, Esq., and others, to venture his money at the time to the establishment of the magnetic telegraph—an enterprise that derived great advantages from his excellent judgment and talent in adapting details to practical results, and his high integrity of purpose, which as President of the pioneer line, he infused through all the operations of the new business, also did much to earn and that public confidence so essential to success. Mr. Barnum was the second President of the present American Telegraph Company, and was an active director in it, as well as President of the old "Magnetic Company" at the time of his death. He was connected with various improvements in his own State and in Virginia, and was ever among the foremost with his capital and his great business qualifications to encourage and aid every public improvement. We knew him well as a most worthy man. He was domestic in his habits, and kindly disposed to all.—*Philadelphia Ledger*, April 6.

The telegraph shocks us this morning with the announcement of the decease, at his residence in Cincinnati of our friend Charles Davenport, Esq., the able and energetic Superintendent of the Southern Division of the Western Union Telegraph Company.

Mr. Davenport came to Cincinnati in the spring of 1849, as a telegraph operator. His untiring industry and unrivaled skill attracted the attention of the Company with which he was connected, and he rapidly advanced over the intermediate positions until he became Superintendent of one of the largest divisions of telegraph in the country. Thoroughly posted in his business, and a strict disciplinarian in practice, the company owed to his efforts much of their success, and the present condition of the Western Union Telegraph Company is indebted in no small degree to his labors.

Mr. Davenport died young, if that term is to be measured by years. But, although barely reaching two score years, if we measure his life by the results which he accomplished, there are few who have deceased at a more advanced age.—*Louisville Journal*.

A telegram from Memphis, dated March 31st ult., announces the decease of Samuel Bruch, Captain and Assistant Superintendent of the Military Division of the Mississippi, and also Superintendent of the lines of the Southwestern Telegraph. Mr. Bruch was one of the ablest and most conscientious operators of the West. Uniting in vigilance, and thoroughly wedded to the interests of the Federal Government, his loss can scarcely be supplied. Methodical in his habits, he possessed the confidence of those who employed him. Of a decidedly religious temperament, and connected with the Methodist denomination, his life reflected lustre upon the sect with which he was numbered. In his decease, not only the telegraph community, but the public at large, and the Federal Government particularly, have met with a severe loss. To him, in the language of the Apostle, "To die is gain."—*Ibid.*

CORRESPONDENCE.

OMAHA, Nebraska, February 3, 1865.

To the Editor of The Telegrapher:

In your edition of *The Telegrapher* for January, page 49, I notice an article by "Pacific," into which a few errors have crept—some of which are probably typographical.

The initials of Mr. Clowry are R. C., not P. C. The Missouri and Western Telegraph was opened to Fort Kearney October, 30th, 1860. The first office west of Kearney was Mullallas fifty miles, not one hundred and fifty. In the main, "Pacific's" communication was correct.

In a former number of *The Telegrapher* some one queries regarding the longest circuit worked regularly on the continent. In answer to this I would state that the Pacific line works in but one circuit from Omaha, Nebraska, to Fort Laramie, Montana, (about 570 miles), so uniformly well that no provision has ever been made for immediate repetition or main battery. If there is anything on the continent that outdoes this, will some of your correspondents favor us with a notice of it.

The Pacific Company's main line extends from Salt Lake City to Omaha, about 1,100 miles, but by arrangement with the Illinois and Mississippi Company, they control through wire to Chicago, making about 1,600 miles, which is being worked splendidly in three circuits. Now, Mr. Editor, let me ask you to consider the nature of the country traversed by this line, the dangers and difficulties of storm, fire, and flood to be encountered by the operators and other employees, who forego the comforts of civilization, and face the privations of life in the fastnesses of the Rocky Mountains, always holding themselves in readiness to go out at duty's call; then note the regularity with which the California business goes through as compared with that over other lines of less than one-fourth the extent, through thickly settled territory, and give your views regarding our right to the use of the motto, "Excellior."

I am much pleased with the remarks of "78," of Boston, with reference to profanity and vulgarity. They are pertinent and worthy of consideration. The use of indecent and uncourteous language between telegraphers over the line, or otherwise, is certainly not calculated to raise our profession to the high position to which the majority of us reasonably hope to see it attain.

"78," your shoe fits me, and I have appropriated it. Hope yourself and other Unionists who have voluntarily come forward and "taken the bull by the horns," will continue the good work of purgation until many others of our fraternity get fits on this and other kindred subjects.

PACIFICUS.

The Telegraphy in Persia

The *Annales* have already reproduced (t. iv., p. 218), an article of the *Vekaya*, official journal of Teheran, which was relative to the inauguration of the first telegraphic wires in Persia.

Since that time it has been difficult to procure new documents, and those that we publish below are due to the kindness of a traveller who has kindly communicated them to us. It is thought they will be read with interest, as the topographical position of that country makes it an important point of communication between Europe and India.

The wire from Teheran to Tebriz, destined to be united to the Russian lines of the Caucasus, extends in length 94 *farsakh*, (about 523 *kilometres*, or 5,565 *metres*). It connects the cities of Kazvine, Ebehr, Zendjane, and Miane. The country travelled over, without being excessively mountainous, is varied; the roads not being impassable for carriages, the telegraph generally follows the most direct route. The short posts in the low latitudes, were until now, subject to no preparation, their maximum height does not exceed four metres, and the line possesses but one wire. It is the same of a second line which is also conducted to the north in order to terminate in Recht, situated at 50 *farsakh* (278 *Kilometres*) from Teheran, on the border of the Caspian Sea. The material of the wires, isolators, &c., has been furnished by French houses, among others, Mr. Menans, who, in 1863, furnished 37,500 *kilogrammes* of wire of three *millimetres*. This is the second of the same amount. To this can be added 5000 muffs, in order to unite the ends of the wires, 800 falconers, 10,000 hook-bells, 50 consoles, &c. The apparatus of transmission were furnished by Breguet; these are alphabetical dial receivers, to which has been added a concentrical circle which contains the characters of the Persian alphabet, comprising twenty-six letters. The first were sent forward in September, 1857; since that time, in January, 1858, November, 1859, and finally in February, 1863, the Persian administration has received at least twenty receivers, as many manipulators, and moreover, models, bells, lightning rods, even relays, all in equal number, and tables of manipulation disposed before-hand for the interior communications. The thirty-six bells, and as many lightning rods would prove sufficiently the frequency of storms on that part of the globe. The total value of all the material dispatched by the French merchants would amount to 150,000 francs, and we are assured that already the amount of taxes collected will cover the expense of construction.

The tariff fixed for the transmission of dispatches is 1 *chahi*, (about 5 *centimes*), a letter; but it must be observed that the Persian language permits the suppression of the vowels, which is a great saving in money and time of transmission.

The administrative organization is all submitted to the military government under the immediate authority of the agent of Commerce. The inspection of the wires is made by gentlemen residing near the route of the wires. We next hope to receive new details more authentic of the actual state of telegraphy in Persia, and

we will be eager to publish them. On the other hand, we find in the *Monitor* the following correspondence, dated Teheran, October 20, 1863:

"The engineers charged with the construction of the telegraph from Bagdad to Bonchir, passing by Teheran, Ispahan and Chiraz, are most arrived. They are immediately going to work, and there is good reason in thinking that the section between Teheran and Bagdad, which should unite the Persian capital to the European lines, will be opened in four months."—*Annales Telegraphiques*, 1864.

Stearns' Paratonnerre or Lightning Arrester for Telegraphs.

The machine, represented in the adjoining cut, is designed to supply a want long felt among telegraphers, of a perfect protector from lightning. The numerous machines which have heretofore been offered to the public have failed, either because they needed constant adjustment—and even then interrupting the line when discharging the lightning—or else by requiring the lightning to jump a short distance before reaching the ground wire, were rendered imperfect and unreliable in their operation. The point which chiefly recommends this machine, is, that it furnishes all atmospheric electricity with a constant connection with the ground through a

good conductor, without requiring it to jump at all, and at the same time does not in the least interfere with the working of the line. To secure this, it has been necessary to search for some substance which would act as a conductor for atmospheric electricity, and still be practically a non-conductor of the galvanic current. Charcoal has been found to answer this important use perfectly, and is therefore employed.

The base of this machine is wood, 4½ inches square, on the under side is a copper plate equal in size to the two brass plates marked C, C, and connected with the screw cup G, by the metallic strip G. Between the upper and lower plates the wood is hollowed and the space filled with charcoal, resting on the lower plate. This charcoal is then filled with metallic rods, pointed; which serve not only as conductors, but also as attractors, of the atmospheric electricity, which is thus perfectly conveyed to the ground.

The machine here represented is arranged for one wire at a way station, or two wires at a terminal station. To attach the instrument to the line, place it in the position represented in the figure—the two thumb-screws H, H, marking the top, and three thumb-screws the bottom; then place it so that the main wires shall run to it before going to the relay; insert a ground wire (double size) in the thumb-screws G, and it will need no further attention.

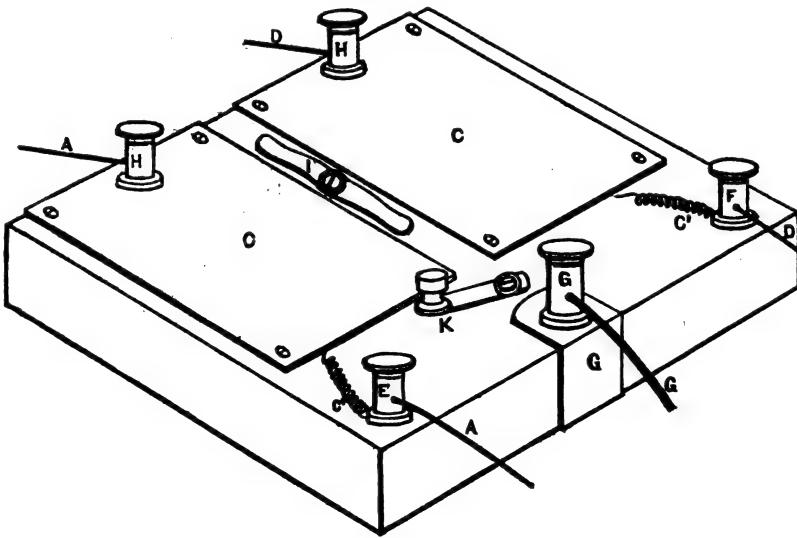
The line wires A and D, are introduced into the two thumb-screws at the top marked H, H, and are diffused upon the plates C, C, which are continued to the lower thumb-screws E and F, by the small wires marked C', C', and thence to the instrument. As this machine arrests not only violent shocks, but even the smallest particle of atmospheric electricity, it is calculated to obviate that change of adjustment which is due to atmospheric electricity, but of course not that which is due to escapement.

To cut out by means of this instrument, turn the button marked I, one fourth way round, and open the key inside the office. The lever K is connected with the ground wire G, for testing. To use it, swing it on to the east or west plate, as may be needed.

The inventor of this machine is Mr. Geo. A. Stearns, of Cambridge, Mass. Although this invention was patented in June, 1864, we are not informed if it has been used to any great extent. If it has we will thank any of our readers to give us an account of its utility.

Sharpening Needles by Electricity.

A practical application of electricity in an altogether new direction has just been made by a telegraph engineer at Lausanne, and seems really to promise very valuable results. Mr. Canderay, the gentleman in question, has found that the electric current is capable of performing readily and cheaply an operation which, as practiced hitherto, has been one of the most unhealthy within the whole range of the industrial arts, namely, that of sharpening the points of pins and needles. He first observed that if a thin wire connected with the negative pole of a galvanic battery, and so forming a negative electrode, be passed through its bottom into a vessel containing water slightly acidulated, and another similar wire connected with the positive pole of the battery, and so forming a positive electrode, enter by the mouth of the vessel, and pass down into the acidulated liquid until its point is within the sixteenth of an inch or so of that of the negative wire, each wire being placed vertically, and the one exactly above the other, the circuit will be completed. Although the battery may consist only of a single cell, by the aid of the small quantity of acidulated liquid between the extremities of the two electrodes, a current will thus pass, and within a few minutes the lower extremity of the upper wire or positive electrode will have become perfectly conical, the fineness of the point of the cone depending on the thickness of the wire, the metal it is made of, and the particular acid used. Experiments suggested by this observation resulted in the discovery that precisely the same phenomenon would occur in the case of each, if, instead of a single wire, a bundle consisting of a great many wires were used as the positive electrode. The applicability of this discovery to the sharpening of pins and needles as a manufacturing process, seems to have been thoroughly tested, and we are told that the pointing of these implements by electric agency requires so little battery power when practiced on the great scale, that it is materially cheaper than the old method of pointing them, while the points obtained are much more perfect than have ever been got by grinding. That tedious process, the fine metallic powder disengaged during which is so injurious to the workmen engaged in it, despite all the precautions they can take, would thus seem to be really doomed at last.—*Mechanics' Magazine*.



THE TELEGRAPHER.

The Electric Telegraph.

RESPECTFULLY DEDICATED TO COL. E. S. SANFORD.

Hark! the warning "Sounder's" click, hither, thither, clear and quick,
 Swinging firmly to and fro, tidings from afar to show,
 While the patient "sounder" reads, as the rapid movement leads,
 He who guides their speaking play, stands a thousand miles away.
 Eloquent, though all unheard, swiftly speeds the secret word,
 Light or dark, or foul or fair, still a message prompt to bear;
 Now it comes in sentence brief; now it tells of loss or grief;
 Now of sorrow, now of mirth, now a wedding, now a birth;
 Now of cunning, now of crime, now of trade in wane or prime;
 Now of safe or sunken ships, now the murderer outstrips;
 Now it warns of failing breath, strikes or stays the stroke of death.
 Now what stirring news it brings—plots of Presidents and kings;
 Or of people grown to strength, rising from their knees at length.
 These to win a state or school, those for flight, or stronger rule.
 All that nations dare to feel, all that serve the common weal;
 All that tells of Government; on the wondrous impulse sent,
 Marks how bold invention's flight makes the widest realms unite.
 It can fetters break or bind, foster or betray the mind;
 Urge to war, unite to peace, toil impel or bid it cease.
 Speak the word and think the thought, quick 'tis as with lightning caught.
 Over, under, land or seas, to the far antipodes.
 Now o'er cities thronged with men, forest now, or lonely glen;
 Now where busy commerce broods, now in wildest solitudes;
 Now where Christian temple stands, now afar in pagan lands;
 Here again as soon as gone, making all the earth as one.
 "Is it not afeat sublime?
 Intellect hath conquered time."

January, 1865.

Wheatstone and Bain.

(Continued.)

Eighteen months after the occurrence of the disgraceful scene recorded in our first article upon the above entitled subject, the following correspondence appeared:

From the Literary Gazette, June 11, 1842.

380 OXFORD STREET, LONDON, 7th June, 1842.

SIR: In an article, headed Royal Institution, in the No. 1323 of the *Literary Gazette* you have made some remarks in reference to what you term Professor Wheatstone's Electro-Magnetic Clock, in a manner which would lead any one to suppose that the Professor was not fairly dealt with in this matter. I am aware that Professor Wheatstone has been very industriously employed in cultivating this impression among his friends, but he has not dared to make those claims to the invention openly, although I have called upon him more than once in the pages of the "*Inventors' Advocate*" at the time when the invention was first brought before the public to state his claims, and I would be happy to answer him.

I now repeat, what I then stated, namely, that Professor Wheatstone is not the author of this invention. I communicated the invention, together with that of the Electro-Magnetic Printing Telegraph to Mr. Wheatstone, with the view of his joining me to bring them forward, and this took place in August 1840 before Mr. Wheatstone did anything in the matter, and I again call upon Professor Wheatstone to answer these statements, when I shall be most happy to reply to whatever he has got to say. For truth's sake alone, Mr. Editor, I solicit the insertion of this letter, which will greatly oblige

Your obedient servant,

ALEXANDER BAIN.

From the Literary Gazette, 18th June, 1842.

SIR: In answer to a letter signed Alexander Bain, which appeared in the *Literary Gazette* of Saturday last, I beg to offer the following observations:

The writer states that the Electro-Magnetic Telegraph clock is not my invention, and that I have not dared to claim it openly. To this my answer is, that on November the 26th, 1840, a paper of mine was read at the Royal Society, fully describing it as my invention; and the telegraph-clock, itself, was shown in action in the Library on the same evening, and during several days. An abstract of this paper was published in the Society's proceedings, and the communication was noticed in the *Literary Gazette* of 28th November, 1840. It was not until the January following that I became aware that an attempt was about to be made to question my right to the invention, by receiving a notice from a Mr. Barwise, of St. Martin's Lane, stating that he was the inventor: some time after which it was publicly announced in the placards and advertisements of the Polytechnic exhibition as being the joint invention of Messrs. Barwise and Bain. The latter person was a working mechanic, who had been employed by me, between the months of August and December of the year 1840.

It admits of no doubt, therefore, that this invention was first publicly made known and claimed by myself: and I proceed to the assertion of the writer that he communicated the invention to me in August, 1840, which was three months preceding the date of my publication. To this I answer, that there is no essential difference between my telegraph-clock and one of the forms of the electro-magnetic telegraph invented by me, and described in the specifications of a patent granted to myself and Mr. Cooke in January, 1840. The former is one of the numerous and obvious applications which I have made, and only requires the idea of telegraphing time to present itself for any workman of ordinary skill to put it into practice. In telegraphing messages, the wheel for making and breaking the circuit is turned round by the finger of the operator, while in telegraphing time, it is carried round by the arbor of a clock. The sole question then is, Did the idea of applying my invention to telegraph time originate with myself, or was it suggested to me by your correspondent? Now, with reference to this, I have to state that long before the date specified, I had described to many of my friends in what manner the principles of my telegraph might be applied, to enable the time of a single clock to be shown simultaneously in all the rooms of a house, or in all the houses of a town.

Among these the following gentlemen have, from particular circumstances, been able to furnish me with the dates of the communications I made to them,—Mr. Airy, the astronomer royal, Dr. W. A. Miller, of King's College, Mr. John Martin, the eminent artist, and Mr. D. Ward, formerly a student in King's College. In addition to this evidence, I may add, that Mr. Bain's letter in the *Inventor's Advocate*, was immediately answered by Mr. Lamb, a workman in my employ, to the purport that it was impossible the statement therein contained could be true, since I had given him instructions to make the electro-magnetic telegraph clock on January 5th, 1840, which was more than six months before Mr. Bain asserted he made his communication. I repeat, that neither, as regards the idea nor any of the details of the telegraph clock have I been in the slightest degree indebted to your correspondent, and I think, Mr. Editor, you must allow that I have satisfactorily refuted his assertion. I next proceed to the consideration of my electro-magnetic printing telegraph. This invention consists merely of an addition to the electro-magnetic telegraph invented by me, and described in the first part of the specification of the patent granted to myself and Mr. Cooke in January, 1840, when this addition is removed the telegraph itself remains,—in all its details, without the slightest alteration. There cannot, therefore, be a question as to the invention of my printing telegraph as a whole, but merely as to the additional apparatus which occasions the letters to be printed instead of their being merely presented to the eye. The following are the means by which I effect this purpose. For the paper disc of the telegraph, on the circumference of which the letters are printed, a thin disc of brass is substituted, cut from the circumference to the centre, so as to form four-and-twenty springs, in the extremes of which types, or punches are fixed. The type wheel is brought to any desired position just as the paper disc is. The additional part consists of a mechanism which, acted upon by an electro-magnet, occasions a hammer to strike the punch brought opposite to it against a cylinder, round which are rolled alternately several sheets of thin white paper, and of the blackened paper used in the manifold writing apparatus, by this means, without presenting any resistance to the type-wheel, I obtain at the same time several distinct printed copies of the message transmitted. This plan originated with, and has been carried out solely by myself.

It is true, that after I had contrived this arrangement Mr. Bain proposed a different and far less efficient mode of effecting the same purpose, this was to move the type-wheel bodily towards the cylinder, round which wet paper was to be rolled to receive the impression, and to employ an inking apparatus similar to that of the common printing machine, in order to supply the type wheel with ink. Though I purchased from him the rude model which he made to explain his notions, and subsequently employed him to see how far it was capable of practical application to my telegraph. I have never made, nor do I intend to make use of any of his suggestions, nor have I ever laid the slightest claim to them. The truth of this statement admits of no dispute, since, in a receipt in my possession, signed and dated by himself on August 18th, 1840, he acknowledges receiving payment for a model of his proposed "modification of the printing apparatus to the electric telegraph" and admits that "it differs from the instrument devised by myself for the same purpose, by an inking roller being employed, and by the wheel, on the circumference of which the types are placed, being bodily moved forward in order to impress the types on the cylinder carrying the paper, instead of the types being pressed individually, as in my instrument." Whatever may be the merits of Mr. Bain's method, it cannot justify any person to call into question the originality and priority of my electro-magnetic printing telegraph, which is secured from infringement by two patents, one already mentioned, including the telegraph itself, and the other of more recent date, comprising my superadded printing apparatus. As I have advanced nothing in this communication but what can be supported by documents, or the evidence of other persons, I shall consider any further unsupported assertions unworthy of notice, and shall, therefore, decline any further correspondence.

I remain your obedient servant,

C. WHEATSTONE.

King's College, June 18, 1842.

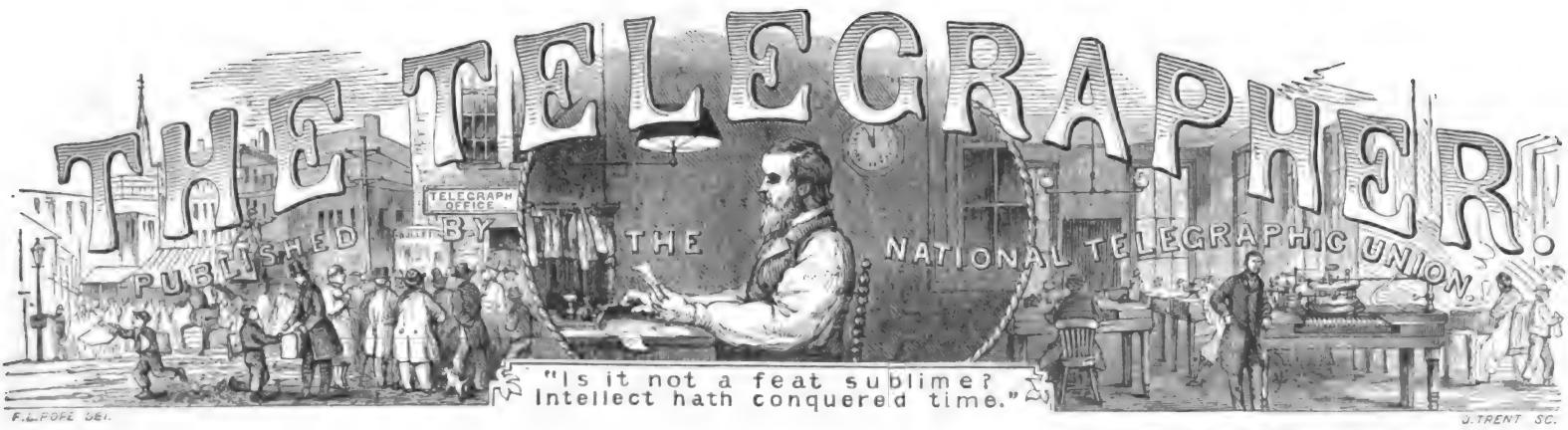
(To be Continued.)

Effect of Light.

Dr. Moor, the celebrated metaphysician, thus speaks of light on body and mind: "A tadpole confined in darkness will never become a frog; and an infant, being deprived of heaven's free light, will only grow into a shapeless idiot, instead of a beautiful and reasonable being. Hence, in the deep, dark gorges and ravines of the Swiss Valais, where the direct sunshine never reaches, the hideous prevalence of idiocy startles the traveller. It is a strange, melancholy idiocy, many citizens are incapable of any articulate speech, some are deaf, some are blind, some labor under all these privations, and all are misshapen in almost every part of the body. I believe there is, in all places, a marked difference in the healthiness of houses, according to their aspect with regard to the sun; and those are decidedly the healthiest, other things being equal, in which all the rooms are, during some part of the day, fully exposed to the direct light. Epidemics attack inhabitants on the shady side of the street, and totally exempt those on the other side; and even in epidemics, such as ague, the morbid influence is often thus partial in its labors"—*Telegraph Review*.

Electric Light in Factories.

Professor Seely, of this city, proposes to employ the current generated by an ordinary frictional electric machine, and obtains the light by interrupting the current. He proposes to secure the continuous action of the machine in all weather, by surrounding it with a glass case, and keeping the air within the case dry by means of chloride of calcium or other hygroscopic substance. Professor Seely is now engaged in experiments to ascertain what material will produce the most intense light, and if the apparatus works according to anticipation, a factory in which machinery is employed may be lighted without any additional expense, except the small power required to turn the electrical machines. As in mills driven by water, there is always a surplus of power during the winter months, the only time when lights are required, there would be no expense for this light except the first cost of the apparatus, which would be quite moderate.



Vol. I.

New York, Monday, May 29, 1865.

No. 9.

THE TELEGRAPHIC REPEATER.

CLARK'S REPEATER.—APPLICATION OF THE EXTRA LOCAL CIRCUIT.

The adjoining diagram is the one which should have accompanied the article upon the above subject printed in our March number. Agreeable to our promise, we now print it, with the subjoined description.

The principle of this repeater is extremely simple, and will be easily understood by an inspection of the diagram.

The western main circuit enters at *W*, passing through the relay magnet *M*, thence to the flat spring *f*, screw point *S*, and battery or ground, at *G*. The eastern main line *E*, is connected in the same manner, through the corresponding parts on the opposite side of the instrument. The flat springs *f*, *f'* are insulated from the sounder levers, by small pieces of hard rubber or ivory.

The arrangements of the ordinary local circuits need no explanation, as it differs in no respect from that usually employed. The wires are omitted in the drawing to avoid confusion and multiplicity of lines. In order to be more easily understood, we shall term these the "regular local circuits," to distinguish them from the "extra locals."

The levers *a*, *a'* of the relay magnets *M*, *M'*, are prolonged a short distance below their fulcrums, and an extra local magnet *L*, with its armature, is placed at the lower end of each lever, but upon its opposite side. Thus it will be seen that the attractive face either of the relay magnet *M*, or the extra local magnet *L*, when exerted upon the lever, will have the effect of closing the regular local circuit connected therewith.

By tracing the circuit of the "extra local" *B*, it will be seen that it is so arranged that the closing of the sounder *R*, cuts off the electric current from the magnet *L'*, by forming a shorter connection through *l*, and *p*. The other extra local circuit is in all respects similar.

Both main circuits being supposed to be closed, the action of the repeater may be explained as follows:

Imagine the circuit of the western line to be broken. The action of the relay *M*, will cause the sounder lever *l* to break the western extra local circuit at *P*, which will then flow through the magnet *L'*. Instantly afterwards the lever *l* also breaks the eastern main circuit by lifting the spring *f* from the screw-point *S*. But the armature *a* of the eastern relay, is still retained in its position by the attraction of the extra local magnet *L*. The elasticity of the spring *f* prevents the breaking of the main circuit through *M'* until after the extra local magnet *L'* is brought into action.

Now, let the west close again. The eastern main circuit is closed by the flat spring *f*, and immediately afterwards the lever *l* comes in contact with the point *P*, cutting off the extra local current from its magnet *L'*. Thus it will be seen that while one side of the apparatus is working, the other side will remain quiet, and vice-versa.

ELECTRICITY AND THE RESISTANCE OF RELAYS.

(Concluded.)

The most common form to which force is immediately converted is heat.

When the brakes are applied to a railroad train going at the rate of twenty miles an hour, the motion or force is not destroyed, but converted into heat, which

will be sensibly felt if the hand is applied to the trucks. Heat applied to water produced the steam, which applied to the piston produced the motion, which, ceasing, by the application of the brakes, is reconverted into heat; and if all the heat thus converted could be collected and measured, it would be found exactly equal to the heat at starting.

This is the theory of the conservation of force recently developed and generally accepted by the scientific world. It only remains to apply it to the phenomena of electricity.

If electricity is a form of motion, as we have supposed that this motion when retarded, that is, when the brakes are applied, should manifest itself in the form of heat like other motions. And we are not disappointed.

The simple spark from an electrical machine will not inflame cotton; but let the current be passed through a wet string before it takes the form of a spark, and it

will inflame it instantly. The wet string takes the place of the brakes—the motion is retarded by it—is converted into heat, and the heat inflames the cotton.

Indeed so generally is this principle admitted that the relative conductivity of various metals is determined by passing a known current through a known wire and measuring the heat generated thereby.

The heat represents the motion lost—the resistance or *brakeage* of the wire. And how do we apply this principle to magnetism?

The application is simple. The coils of the magnet become the brakes. The motion is retarded and changed into magnetic force. The change here is peculiar, and yet that it is as much a change as in the case of heat, is evident from the fact that where the current is excessive, heat is perceptibly developed in this retardation just as in other cases, although comparatively no heat was developed where the wire was not coiled.

The loss of power occasioned by the introduction of the relay upon the line, then is simply an application of the old adage that "You can't eat your pudding to-day and have it to-morrow too."

If you use your force or motion to produce magnetism, you can't use the same force again to travel over the line; what you use in your magnet is exactly so much deducted from the current.

A straight wire does not produce exactly this kind of conversion, and therefore, in retardation in a straight wire the motion is converted into heat.

In a coiled wire it is evident that the resistance will be much greater than in a straight wire, just as it requires more muscular exertion to run in a circle for an hour than it does to run in a straight line.

It was ignorance of this principle which induced the proposer of the new method of laying the Atlantic Cable, to assert that the failure of the old cable was in part due to the fact that iron wire was placed close to the insulator as a strengthener, because, as he said, iron was magnetic; and illustrating his point, he alluded to the well-known fact that each magnet diminished the force of the current, and inferred that the iron caused or absorbed this loss, whereas it would be lost in fact, and the magnetism would be produced whether the iron is inside the coil or not, as is well known.

I have alluded to the fact that electricity and galvanism are essentially identical; but this idea must not be pushed too far.

Though they are so far identical that they produce the same phenomena, and

though galvanism may even be converted into electricity, still they differ essentially in some of their attributes.

This difference is expressed by the simple word "tension," and electricity is said to be of "high tension," and galvanism of "low tension."

Though this seems to be a very slight difference, it is yet of considerable practical importance.

Electricity is of the highest tension, yet it is by no means the most powerful or available for producing magnetism. When converted, its resultant is usually more like heat than magnetism. Its property of going through space or air, which is a non conductor of galvanism, is too well known to need comment, but in other conductors it exhibits similar properties.

Charcoal, which stands next to metals as a conductor of lightning, and is, for this reason, frequently used in preference to the ground for the insertion of lightning rods, is almost a perfect non conductor of galvanism, unless this also is worked up to a very high tension, while plumbago, which is far inferior as a conductor of lightning, is, nevertheless, a tolerably good conductor of galvanism.

Not only is this true of the two extremes, but the influence of tension is plainly in the case of the galvanism, generated by a sulphate of copper battery and that generated by a Grove cup. The experiment may be tried in any office.

If a drop of water be interposed between the points of the relay connecting the local circuit, no connection will be perceived; but if the same experiment be tried with the points of the key, the circuit cannot be broken. The tension of the two is so different as to furnish one with a new set of conductors.

We thus have in our theory of electricity, as a form of motion, a constantly ascending gradation to fill up the gap between the vibrations of sound and those of light. First, the ascent from the lowest heat up to the highest; then low tension galvanism, then high tension galvanism, then the highest, or electricity, as the term is here used in distinction from galvanism.

If it is objected that this is purely speculative, I would remind the objector that it is no more speculation than his own favorite theory, and that it far better explains the phenomena.

That it is the coiling of the wire which produces the resistance rather than the wire itself, is further sustained by the fact that when the wire is so crowded as to cause resistance enough to generate heat sufficient to burn it, it will burn where it is coiled rather than where it is straight; and still further, if a small magnet is charged from a powerful battery, the coil will soon become too hot for the hands, whilst the straight wire will not be perceptibly heated.

From the above facts we might reasonably conclude that in the formation of relay magnets there are two points of essential importance. First, the wire must be coiled in order to produce the right kind of retardation; and second, the wire must be small enough to produce a perceptible retardation. These are the only necessary conditions, though of course they admit of various modifications in practice.

If the coiled wire is small enough to produce a sensible retardation, we shall have magnetism as a result; but if the wire is so large that the retardation is very slight, we shall have a very small quantity of magnetism. If the wire is too small we shall have a large amount of retardation, but not necessarily a large amount of magnetism, part of it, and in some cases, nearly all of it, being lost in the form of heat.

Thus, if a powerful battery be attached to a relay magnet, there will be a very great retardation of the current; but the experimenter is surprised to find that not so much magnetism is produced as with a battery of two or three cups. If the hand be applied to the magnet, however, the mystery is solved. The retardation has produced heat principally, not magnetism.

Let the same battery be attached to a magnet of half the number of coils, but of much larger wire, the retardation, as any can readily see, is not nearly so great, but the magnetism developed is much greater, while the heat developed is less, perhaps almost imperceptible, and all the retardation produces magnetism.

The size of wire then, which is most desirable for any magnet, is one which will produce the greatest retardation without producing too much heat. I have before alluded to the difference of intensity between the Daniels battery and the Grove battery. This intensity or tension, is the principle which gives to galvanism the power to overcome resistance. In the Daniels or sulphate of copper battery, there is much less of this than in the Grove battery, hence within certain limits the magnet for a Daniels battery should have a larger wire than that for a Grove battery, for the resistance of the small wire to the current from a Daniels battery is much greater in proportion to its intensity than it is to the current from the Grove battery. Hence if a Daniels battery be attached to a relay magnet not so much magnetism will be produced as if the same battery be attached to a local magnet of one tenth the number of coils, and of much larger wire. But not only is the intensity different in different batteries, but the intensity of any battery may be varied by changing the connection of the plates. When similar plates are connected together the intensity of the current is equal to that of a single cup. When unlike plates are connected the intensity is equal to the number of cups multiplied by the intensity of a single cup.

This being so, the remarks made with reference to the Daniels and the Grove batteries, apply equally well to these other modified forms of current which are, of course, governed by the same laws.

It is not to be expected that at this early stage of the science we have arrived at all the grand fundamental truths, much less at an explanation of all the phenomena. The field is still open and invites the research of all interested. Telegraph operators especially, should make the study of electricity a part of their profession; should note carefully the daily phenomena, and by collecting and comparing these notes with others, should seek the development of new truth, and raise their employment from that of a mere art up to that of a science.

PLAN OF A UNIVERSAL TELEGRAPH LANGUAGE.

(Concluded.)

From that time, to write: John is ill no more, Peter has been in danger, Jules is dead, or all other analogous combination of the ideas contained in the three series of the table, I would only write 241, 122, 313, &c., and it will suffice to designate this table by a key, by which the French, German, or English correspondent can read thus: John—is no more—ill, without any of the correspondents requiring, in order to compose or translate any other than the table written in his own language. This is the principal point which seems to have baffled until now all the inventors of the universal languages. Suppose the proposition complicated with direct or indirect cases, adverbs, &c. Nothing will prevent the application of the same system in taking 5, 6, 10 series, and even more, to the exhaustion of the possible elements of the proposition.

I have until now, to simplify, admitted that with the zero, one need employ but the nine Arabic ciphers. But from the moment when it influences the numbers subject to be ten to ten times greater, one is not obliged to be limited to so small a number of signs. In principle the number of signs can be conceived as unlimited. But in telegraphy the limit should be the number of different signs given by each apparatus. The ancient French apparatus permitted us to dispose of each series of 98 signs, in order that if a number of 5 ciphers representing 5 series of 10 ciphers already given, from 1 to 99,999 combinations, a group of 5 signals representing 5 series each, of 98 ideas might represent 98⁵ different phrases. Short-hand-writing being introduced by the apparatus of Mr. Caselli, in the telegraphic practice, will furnish us easily a system of numerous signs, and realizing the conditions the most favorable in the working of this apparatus (suppression of strokes, &c.) To speak of the Morse apparatus only, all the groups from 1 to 5 principles might be employed; but the most simple one is to suppose that one would replace the series of 9 ciphers by the Morse alphabet, (in laying aside the vowel o, which would be confounded with the zero.) We have then from 26 to 80 signs, in retaining the ciphers for the keys and for the particular cases. Thus to resume the example already employed: with the formula aaa, preceded by its reference-key, one could telegraph with all the conceivable details, the past, present, or future, certain or probable, &c., of the health of the members of a family. It will suffice to reunite in the first series their names, to foresee the customs, the times, the persons, the numbers, &c., finally to enumerate with necessary precision all the possible cases of health and sickness, from the perfect health to the death and burial.

Whoever has seen many official or private despatches knows that they are generally of great uniformity. It can be seen in analyzing the relative subjects to the same order of ideas, that they are all, if not constructed on the same plan, at least easily reducible to an unique type, and consequently easy to comprehend in a common formula. This last point is essential. To foresee, write, and designate by ciphers all the possible phrases would be, even in confining one's self to the usual cases, an infinite task. It is known to what size the vocabulary of the aerial telegraph had attained, reserved only to official correspondence. One must, therefore, conclude for each order of ideas to foresee and represent beforehand, without writing, that is to say, to foresee and to write neither the phrases nor the groups of signals destined to represent them, but only the elements of these phrases and of these groups. Once these terms established, the problem is reduced to decompose the phrases, to isolate, and to class the elements, to dispose of these in series in numbering them, to group these series according to the order most natural, and to leave to the operator the responsibility of taking in the table for each particular case the elements of which he will have need. Provided that by making use of the zero, one can, in omitting the series of which each actual case does not reclaim the usage, retaining to the others their relative situation, and that the usual writing might easily supply to the defects of the cipher for the words not foreseen, proper names, &c., the system would be that of an easy application. But I cannot here enter into the detail of the execution, which would engage me too far, and would be, besides, without interest. Only note that it will suffice to confuse the following keys of the particular conventions to obtain at will the secret of the despatches.

In conclusion, each letter of our groups is worth at least one word, often several, at times entire members of phrases, and as it will be seen further on, entire ones. Each phrase is, therefore, in the minimum represented by as many letters as it comprises words, that which can be considered as the last term of the abbreviation.

The dispatch is reduced to the address and to the signature, sometimes ciphers and letters. A notable reduction of the taxes would be the first consequence of the general adoption of a like system. The principle is besides, so simple that each one could easily learn to use it. But to spare to each operator the necessity of publishing a special vocabulary, it would be convenient to draw up for the most frequent cases a general register which, established under the most compact form, would become of common use for the exchange of ideas, be they at a distance, by the use of telegraphy, or even on the spot, between persons of different languages. Each one would promptly form his thoughts according to the types established in this manual. Whilst our vocabularies oblige us to seek in succession all the words of the phrase in the alphabetical series, if one composes, in the numerical series if one translates, ours would present to the operator and the interpreter, in a table easy to gather up at a glance, all the probable elements of the dispatch; composition and interpretation would be done in the twinkling of an eye.

Three usual cases show at once, and the habitual uniformity of the telegrams, and the necessity of abbreviation and the utility of a rapid method of international correspondence, the working of railroads, the nautical telegraph, and the necessary dispatches of the telegraphic offices for the use of the lines, or of the transmissions. The nautical telegraph merits special attention, as it admits daily the problem of the international correspondence by means of a telegraphic language. Thanks to it, as defective as may be the solutions, the problem may no more be rated as chimerical. Practical men have studied this from this point. One knows that there exists international by-laws of nautical telegraphy. But I will confine myself to the question of the service of correspondence, which has already been made by me in 1862, the subject of a proposition submitted to the administration of the telegraphic wires.

Nothing more easy than to gather in a small number of chapters (service of the dispatches, surveyorship of the clerks and of the apparatus, the confusion, experiences, personal movements, &c.) all the usual phrases of correspondence between chiefs of office, to analyze these phrases, and to form tables according to the indicated method. I will give an enlarged example which presents this particularity of resuming and of classing all the imaginable hypotheses on the causes of perplexities observed by the offices, with the indication of the measures to be taken, orders to be given in each particular case.

The formula AAAA, preceded by an agreed sign, zd, for example, (ziffer-depêche), as is said pd, sd, &c., will suffice in all cases of the correspondence of service.

The first rank to the left A000, B000, &c., gives the heads of chapters. Be it, therefore, F000 as the chapter of perplexities. By hundreds are found the pronouns designating the stations, with conjunctions, &c. For example: A00, I, (we, one); B00, you, C00, he, (that is to say the office of which the name follows the group), D00, you seem, E00, he seems, F00, if you, G00, prevent the office of which the name follows the group that I, H00, the office, &c.; makes you say that, &c.

By tens are found the made observations, indicated with detail: A0. To receive well, B0—badly, C0—unnatural signals, D0—irregular features, E0—current, constant, contact, &c.

Finally, by units are placed the hypotheses that can promote each observation. Each ten has, therefore, its particular series of units. Now the hypothesis to which a confusion gives place can be of four kinds, and I group them for each observation in the order resulting from this classification: 1st, It is not made from ignorance or convenience, any hypothesis; it is the case of placing a zero in the units column; 2d, hypothesis is relative to the corresponding station (apparatus, heaps, clerks), and in this case should be accompanied by an order generally; 3d, hypothesis is relative to the line or to intermediate posts, and it is announced that they intend taking, or else ask to take the necessary measures; 4th, finally, the official dispatch is an answer and opposes the hypothesis of the correspondent a relative contra-hypothesis be it on the line, be it on the station which is in operation.

Under the observation E0, to receive a constant dispatch, will be then found, I suppose:

1st. O, absence of hypothesis;

2nd B, a collection too great; diminish it. C employed for contact, unwillingly, watching over, &c.

3d. H, storm, I, aurora borealis, J, mixture, &c.

4th. P, magnetic apparatus, change it, &c.; means too little bent on, &c.

We will designate the wires by formulas such as 002, 086, 118, giving the number even of the vocabulary.

If then, the operator receives on the wire No. 86, (Lyons-Bordeaux), a permanent dispatch from Saint Etienne, that the trouble is attributed to a malicious employee who is in readiness, and wishes to ask Clermont to forewarn Saint-Etienne that he must oversee the work, he would write by the assistance of the following table:

Zd, Clermont To the operator FGEC,086 Saint-Etienne. Clermont will communicate to Saint-Etienne: zd Saint-Etienne of Clermont, FHOC,086 operator. Finally, Saint-Etienne, if he explains the contact by a storm, &c., would say: zd operator of

Saint-Etienne FFEH or FFEI, FFEP, &c. The official dispatches are, it is known, as necessary as embarrassing. It can hardly be hoped to diminish the number; it is, therefore, their volume which must be reduced. Our formulas would regulate the correspondence in foreseeing the omissions and the prolixity. Condensed in a little manual of daily use, they would become easily familiar, thanks, to their systematic character; the most necessary ones would be easily committed to memory. Finally, the subject of the tables would be easily translated into all the European languages.

Something analogous has already been done, and should be herein mentioned. The cheap transmission of the meteorological observations demanded abbreviations, that the uniformity of these telegrams and the same nature of a text composed all of ciphers rendered easy. It has been thought in England necessary to represent also by ciphers, the other parts of text, the name of the city, the direction of the wind, its strength, the mass of clouds, the state of the heavens and of the sea, and to group in an invariable order maintained by the aid of the zero, all the ciphers thus obtained; they have then been divided into 8 groups of 5 ciphers each; 3 taxed words are thus worth 10 ideas: the name of the station and 9 observations, of which several are accompanied by decimals.

The consecutive telegraphy, (such is the name that I propose for the system that I have explained), has then a practical application. No doubt that with time, and especially on long lines and on the cables, it receives others successively. As to its general adoption, it cannot be near at hand; it supposes the assimilation of the dispatch to the letter by the authority of the secret. Moreover, it must be avowed that the substitution of the ideological series to the alphabetical, the only principle that can found a system of universal correspondence, supposes itself a considerable preparatory work, the systematic construction of the table of human ideas equally established for at least two modern languages, French and German, for example. This difficult work should, in spite of several ancient or recent attempts, be considered as completely done. In conclusion, we would invite those who possess the necessary talent, courage, and leisure.—*Annales Télégraphiques*.

PATENT SPECIFICATIONS.

*David Brooks, of Philadelphia, Pa., Letters Patent No. 45,221. Dated Nov. 29, 1864.
Improvement in Insulators for Telegraph Wires.*

To all whom it may concern:

Be it known that I, David Brooks, of Philadelphia, Pennsylvania, have invented an improvement in insulators for telegraph wires; and I do hereby declare the following to be a full, clear, and exact description of the same.

My invention consists of the improved mode fully described hereafter, of constructing insulators for telegraph wires, whereby the inconveniences resulting from the collection of water on and about the insulators during rainy and foggy weather, are obviated.

In order to enable others skilled in the art to make and use my invention, I will now proceed to describe its construction and operation.

The exterior is a cast iron casing, a projection of which serves as a means of attachment to the arms of the telegraph poles.

A cylindrical block of glass, between which and the interior of the casing intervenes a body of sulphur, the glass being considerably shorter than the casing.

In this glass block is a circular opening for the reception of the wire-holder, which is secured by a mass of sulphur, the stem of the holder being made concave at opposite sides, so that it cannot be withdrawn from the glass by the weight or tension of the wires.

In preparing my improved insulators, I, in the first instance, place the glass on a table or slab, and pour into the opening melted sulphur, and then deposit the stem of the wire-holder in the opening of the glass, which is perfectly secured to the holder when the sulphur has become hard by cooling.

After this, I cement to the upper edge of the glass, a strip of paper made in the form of a hollow cylinder, when the glass with its wire-holder is ready for attachment to the casing.

In order to do this, I, in the first instance heat the casing, and then pour into the same a suitable quantity of molten sulphur, and into this I deposit the glass block with its paper cylinder. As the latter extends to the upper edge of the casting, there will, necessarily be a body of sulphur between the said casing and the paper.

The sulphur and paper at the upper edge of the casing are then trimmed off after which, while the insulator is still in an inverted position, molten paraffine is poured into the space above the glass, within the paper cylinder, until the space is full, the insulator is then turned up-side down, and the greater portion of the molten paraffine poured out, the remainder adhering to the paper and to the upper edge of the casing and sulphur; for care should be taken that the coating of paraffine extends over the edge of the casing.

When the coating of paraffine has congealed, I cover it with a varnish composed of bees-wax, rosin, and paraffine, when the insulator is complete and ready for being attached to the pole.

THE TELEGRAPHER

Although sulphur affords an excellent medium for securing the wire-holder to the glass, and the latter to the exterior casing of the insulator, and although sulphur when dry is a comparatively good non-conductor of electricity, it has a great affinity for water, with which, during rains or fogs it soon becomes charged to such an extent as to neutralize its non-conducting properties; hence, during rainy weather, the sulphur would have a tendency to conduct the moisture from the edge of the casing to the wire-holder and through the paper, were it not for the coating of paraffine which penetrates the sulphur, adheres to the surface of the same, and effectually prevents the access of moisture to the wire-holder, the stem of which is also coated with paraffine, and varnished.

I claim as my invention, and desire to secure by Letters Patent,

Firstly, The use in the manner described, of a hollow cylinder of paper, or its equivalent, in connecting the glass block to the casing by means of sulphur.

Secondly, Coating the interior of the space above the glass block, as well as the edges of the casing, and of the sulphur near the same; also the stem of the wire-holder with paraffine in the manner and for the purpose described.

Curious Electrical Phenomena.

Nearly every child old enough to take an interest in reading stories of travel in foreign lands, has read of the strange electrical storms which take place on the deserts of Northern Africa, when the air is filled with red dust brought from whence no one can tell, a prickly sensation is felt on the skin, making it difficult to stand for any length of time exposed to the full force of the hot, dry blast, and the hair and beard of the traveller, charged with an excess of electricity, stand out stiff and distinct "like quills upon the fretful porcupine." It is known that storms of a similar character, but generally of less violence, sweep at times over the desert plains of Southern California and Arizona, across the great Llano Estacado, or Staked Plain of Texas, and lap down upon the borders of the fertile regions contiguous to the Gulf of Mexico. But it is not generally known that such are ever felt with any considerable force in the latitude of San Francisco. It appears, however, that such is the fact, and that our electrical storms produce very serious results in some cases. The reason that the residents of San Francisco are unaware of the fact, seems to be that the sand storms to which we are accustomed are so much more irritating to the skin, eyes, and mucous membrane, that the electrical storm passes unnoticed, or is set down to the credit of the "pleasant weather" side of the ledger.

Early in November last the submarine telegraphic cable, laid across the straits leading up from the Golden Gate to the Bay of San Francisco, from Lime Point to Fort Point, suddenly ceased to work from some cause not then discoverable, and it was supposed that it had been caught by the anchor of some vessel and broken. Every possible effort was made for a long time to discover the break, but without avail. The line was in working order from Lime Point to Benicia, and from the shore at Fort Point to the office in this city, but send as much of the subtle fluid as you would into the cable running under the bay, none came out on the other side. Indications favored the conclusion that the break was nearest to Marin county shore, and, as a last resort, Superintendent James Gamble determined to commence pulling up the cable from that side. After taking up about one-third of a mile of the cable, the boat party engaged in the work found a place where it was fast in the rocks at the bottom, and it was impossible to dislodge it, they could go no further, and were obliged to cut it there. On applying the instrument, it was found that the portion of the line still submerged was in working order to San Francisco, and after putting a new section in place of that already raised, the cable was relaid, last week, and that line is now in working order to Sacramento. Mr. Gamble was determined to find out where the trouble had been, and had the raised section of cable run over and tested, until the instrument indicated the spot where the damage existed, and the piece of the cable, where found defective, was unwound of the exterior covering of the wire.

The cable is constructed as follows: A small copper wire (No. 16) is encased in three successive coats or wrappers of gutta percha, the whole making a cord of about one-third of an inch in thickness; this cord is then "laid" or wrapped with tarred jute, and over-all a layer of galvanized iron wire, consisting of twelve strands of No. 10 is wrapped, the entire cable being over an inch in thickness when complete. The galvanized iron was first unwrapped, and the layer of jute was detached, the gutta percha coating and the small central copper wire only being left. The defect was now discovered at a point which would have been about a quarter of a mile from the Marin County shore. A small hole, about the size of a pipe-stem, was found burned through the gutta percha coating, from the copper wire outwards, and so far into the jute covering as to allow the salt water to come directly in contact with the copper wire, which was also partially burned off, and of course the electric current was broken at that point. On referring back to the day on which the cable ceased to work, it was found that an electrical storm, such as we have referred to in the beginning of this article, was prevailing in this vicinity.

The lines on this day were so overcharged with surplus outside electricity, that it was impossible to work the line, and the helixes of the instruments were repeatedly reversed by the action of atmospheric electricity. Some idea of the force of the

current of "volunteer" electricity with which the operators had to contend, may be imagined from the fact that the operator at Benicia was obliged to use sticks with which to disconnect the wires from the battery in his office, and, after the connection was broken, there was a continuous play of vivid electrical light between the points of the wires, the stream seeming to be of the full size of the wire itself. There is no doubt but that the overcharge of electricity caused the destruction of the cable at that time.

It has been suggested that the extraordinary amount of electricity applied to the trans-Atlantic telegraph cable caused it to give out where it did, and the manner of its giving out is probably explained by the discovery of the break in this instance. The air, during this storm, was filled with red dust of a peculiar character, and in the high lands in Marin county the prickly, irritating sensation produced on the skin by the dry north wind was precisely what is felt during the prevalence of the simoon in Africa, and the corresponding "red dust storms" of the desert plains of the interior of our continent.—*Alta California*.

A List of Submarine Telegraph Cables in operation in the United States, Canada, and British Provinces.

(Concluded.)

Date when laid.	From	To	No. of Conductors	Length of Cable in Statute Miles & Feet.
1855	Across Strait of Canso...	N. S.....	3	14.
1856	do do do	at Pugwash, N. S.....	3	2640 ft.
1858	do at Highlands.....	Staten Island.....	3	1300
1860	Newark N.J.....	Across Passiac River ...	3	165
1860	do do	do do do	3	165
1860	Fall River, Mass.....	do Slade's Ferry.....	1	1250
1860	New Brunswick, N.J....	at the Turnpike bridge..	3	200
1860	do do do.....	at R. R. bridge.....	3	175
1860	do do do.....	Across River.....	3	175
1861	Newark, N. J.....	do Passiac River.....	3	165
1862	do	do do do	3	165
1862	Across Lenox's Passage..	Cape Breton, N. S.....	2	1.
1862	Newark, N. J.....	Across Passiac River....	3	240
1862	do	do do do	3	240
1863	New Brighton, do.....	do River	3	2200
1863	Baker's Basin do.....	Below Trenton, N. J.....	3	180
1863	Across Delaware River..	Smith's Island.....	3	2000
1863	Camden, N. J.....	do do	3	2000
1863	Smith's Island.....	Philadelphia, Pa.....	3	1280
1863	New London, Ct.....	Across Thames River...	3	1300
1863	Newark, N. J.....	do Passiac do	3	165
1864	do	do do do	3	240
1864	Across Newark Bay.....	on N. J. Central R. R...	3	360
1864	do do do	Bridge on N. J. C. R. R.	1	474
1864	New Brunswick N. J....	at the R. R. Bridge.....	3	175
1864	do do do	do do do	3	175
1864	Perth Amboy, do	South Amboy, N. J.....	3	3800
1864	Across the Connecticut R.	at Lyme.....	1	1700
1864	do do do	River at Lyme	1	1700
1864	Slade's Ferry.....	Fall River, Mass.....	1	1250
1864	Fall River, Mass.....	Slade's Ferry.....	1	1250
1865	Smith's Island.....	Philadelphia.....	3	1280

ELECTRICITY IN WATER.—In a paper addressed to the Academy of Sciences, Dr. Scoutetten endeavors to show that the real activity of mineral waters is owing to their electricity. Imbued with this idea, he at first attempted to discover traces of electricity in mineral springs by means of a gold-leaf electroscope; but without success. Continuing his experiments, he found the confirmation of Bacquerel's theory, viz.: that the earth in contact with a sheet of water manifests electricity; and also that when the latter is impregnated with air, it takes a quantity of positive electricity, while the earth is negative. The same is the case with sea water; but all mineral springs are negative with regard to the earth. By the aid of Nobili's galvanometer, which is founded on the principle of the deviation of the needle under the influence of a galvanic current, Dr. Scoutetten found that, if a mineral water be brought into imperfect contact with common aerated water by means of a porous diaphragm, and if platinum electrodes be used, a regular pile is formed, and the galvanometer shows the mineral water to be negative, and the common one positive. Extending these experiments to the human body, he found that mineral waters determine a current always passing from the water to the patient; they are, therefore, negative with respect to the latter, and the galvanometer in their case marks 70, 80, and as much as 90 degrees. Hence Dr. Scoutetten explains the efficacy of mineral springs by the three following propositions: 1. That mineral waters all determine phenomena of excitation owing to the electricity they devolve in contact with the human body. 2. That they exercise a therapeutic action, which varies according to the nature of the mineralizing element. 3. That they occasion a topical action which provokes eruptions of the skin.—*Telegraphic Journal*.

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adopted by the New York District, and supposed by that, they were ready for distribution.

Mr. J. Partrick moved that the Director be directed to procure fifty copies for the use of Philadelphia District. Carried.

At 9:25 P.M., there being no further business before the meeting, the Director declared it adjourned until the first Sunday afternoon next month.

R. J. BLACK, *Dist. Director.*

J. S. GREENE, *Secy. pro tem.*

Pursuant to adjournment, the regular monthly meeting of this District was held this afternoon, May 7th.

Meeting called to order at 3:15, District Director in the Chair. The roll was called and twenty-two members answered to their names.

The minutes of the previous meeting were read and adopted. The District Director said he had procured the By-Laws adopted by the New York District, a copy of which was then given to each member present, and the meeting proceeded to take action upon the same. The blanks left in the different clauses for the accommodation of the various Districts, were filled in and disposed of in the following manner: Clause 2, Art. 1. Meeting to be held first Sunday of each month 3 P. M. Clause 4, Art. 1. Fine for non-attendance of special meeting, 50 cents. Clause 5, Art. 1. Ten members constitute a quorum. Clause 2, Sec. 2, Art. 2. District Secretary shall furnish District Treasurer, before second Monday following last meeting, a list of absentees, &c. Clause 3, same Sec. Deemed inexpedient at present to insert any amount to be given as bond by District Treasurer. Clause accordingly left blank. Sec. 2, Clause 2, Art. 4. Fine for disorderly conduct, &c., not exceed one dollar. Clause 2, Art. 5. Applicants for membership be voted for but two times, &c. If once rejected may again be proposed at the expiration of three months. If a second time rejected, not until expiration of twelve months. Clause 1, Art. 7. Monthly dues, 20 cents. Fine for non-attendance regular meeting, 50 cents. Clause 2, Art. 9. By-Laws be amended after one month's notice, &c., by vote of two-thirds of the members.

This accomplished, the By-Laws were unanimously adopted by the meeting.

A communication from the Philadelphia Press Club, dated 3d inst., courteously tendering to the Philadelphia District, of the N. T. U., the use of their Hall for the stated meeting of to-day, was read to the meeting. It was ordered that the communication be spread upon the minutes of the meeting, and a vote of thanks be returned to the Press Club for the use of their very pleasant and richly furnished room, and the courtesy so kindly extended to us.

District Director Black then took the floor, (Mr. Woodruff in the Chair), and after making some remarks upon the subject of procuring a room for the meetings of the District, made motion that a committee of three be appointed to select a suitable location, and be authorized to issue one thousand shares of stock at one dollar per share, for the purpose of fitting up a suitable room. This was agreed to, and Messrs. Greene, Fulton, and Buckwell were appointed as such committee. On motion, Mr. Hasson, of the Press Club, and District Director Black, were added to said Committee. A few pleasant and interesting remarks were made by various members, after which, there being no further business before the meeting, it was adjourned until the first Sunday in June, at 3 P. M.

R. J. BLACK, *Dist. Director.*

G. W. PORTER, *Dist. Secy.*

NEW YORK DISTRICT.

Regular meeting held 2d inst., 21 members present.

The minutes of the previous meeting were read and altered to include the Hon Henry O'Reilly in vote of thanks, he having made the same offer as Prof. Morse.

District Director read a communication from the Chairman of the Executive Committee approving the expulsion of T. Miler, R. A. Schutt, and N. H. Brown, for non-payment of dues. T. Brennan, H. E. Tompson, C. J. Berch, — Culver, and H. C. Cowan, elected members. Report received from Ball Committee of which the following is a synopsis. The ball has been a decided success; and notwithstanding the very heavy expenses, the Committee are able to make a handsome return to the District Treasury, as will be seen by the subjoined statement:

Sales of 351 Tickets.....	\$702 00
Amount taken at Door.....	10 00
Donations.....	100 00
Total.....	\$812 00
Disbursements.....	527 87
Balance.....	284 63

Which sum was turned over to the District Treasurer. No report was received from other committees, except that appointed at last meeting, to draw up resolutions of thanks to the Ball Committee, Prof. Morse, Hon. Henry O'Reilly, and Jno. Horn, Jr.

Mr. L. H. Smith, offered the following:

Whereas—Our country has been plunged into deep grief by the assassination of its honored President, Be it, therefore,

TREASURER'S SIXTH QUARTERLY REPORT.

PHILADELPHIA, May 9, 1865.

C. W. HAMMOND, Esq., *President N. T. U.*

Sir: I have the pleasure of submitting the following report of the Treasury of the National Telegraphic Union, for the quarter ending May 1st, 1865.

Receipts:

To balance on hand, Feb'y 1, 1865.....	\$132 21
" Amount invested in 5-20 U. S. Bonds.....	657 74
" Profits of Nos. 2, 3, 4, 5, 6, and 7 of <i>The Telegrapher</i>	189 89
Received for initiation fees, dues, &c.....	822 56

Expenditures:

By Paid for sickness.....	\$20 00
" for printing.....	24 00
" for drafting Charter.....	5 00
" for stationery, postage, &c.....	17 92
" Treasurer's salary.....	50 00
" Investment in 5-20 U. S. Bonds.....	657 74
Balance cash on hand.....	1,027 74
	—————
	\$1,802 40 1,802 40

Respy yours,
JAMES PARTRICK, *Treasurer.*

DISTRICT PROCEEDINGS.

PHILADELPHIA DISTRICT.

The regular monthly meeting called for this evening, (3d ult.), but owing to the great excitement caused by the fall of Richmond and Petersburg, no quorum was present, and adjourned until the following Monday; but the great excitement caused by the surrender of General Lee and his army to Lt. Gen. Grant, no quorum was present.

The District Director called an extra meeting for 17th ult. Meeting called to order at 8:35, P.M., the District Director in the Chair.

The Secretary being absent (on duty), the Director required the Local Treasurer to combine the two offices for the evening.

The minutes of the last meeting were read and approved.

Upon roll being called, eight members answered to their names.

The election of new members being next in order, Messrs. J. R. Woodruff and J. S. Elliott were proposed and vouched for by the District Director, Clarence R. Eves, by W. R. Partrick, and Albert Wyeth, by N. J. Snyder, and were unanimously elected.

The Director declared the meeting open for other business, when Mr. J. Partrick asked for information in regard to payment of "Union" dues, saying there was dereliction of duty on the part of some one whose duty it was to attend to this matter.

The Director explained his views in regard to the question, and said he would make it his duty to know where the fault lies and report at the next meeting. The Local director, (Mr. Buckwell), made a few remarks on the same subject.

Mr. J. Partrick moved the Secretary be authorized to procure printed notices of meetings. Carried.

The Director spoke of the difficulty of having a quorum present during the week, and thought, perhaps, might be best to hold them on Sunday afternoons as was originally done. Mr. J. Partrick also made a few remarks on same subject.

Mr. Greene made motion to change time of holding meetings to three P. M., of the first Sunday in each month. Carried.

The Director read the resignation of Mr. G. W. Porter, as Local Secretary, as he has to be on duty every evening at seven o'clock. It was moved and seconded that resignation be accepted, but before motion was put by the Chair, Mr. J. Partrick moved that resignation be not accepted, and that he be requested to retain his office, as the meetings hereafter will be held on Sunday afternoons. Mr. Partrick's motion prevailing, resignation was not accepted.

The Director said he had received a printed copy of the District By-Laws

THE TELEGRAPHER.

Resolved, That this District, through its Director, recommend to the Executive Committee of the Union, that they in an official manner, express the sympathy and profound sorrow of the members of the Union at this great bereavement of our country. Carried.

Mr. Christie moved the Director be authorized to employ an errand boy to perform such duties as may be required of him by the several officers of the District. Carried.

Adjourned at 10 o'clock.

W. STEINHOFF, *Dist. Director.*

J. C. CHRISTIE, *Dist. Secy.*

ALBANY DISTRICT.

Eighth regular meeting called by District Director, 2d inst., 22 members present. T. P. Nightingale was transferred from Utica District. John W. Murphy, of Westfield, Mass., was elected a member of this District.

Several communications were received relative to local affairs, and laid on the table for future action. The District now numbers thirty-eight members in good standing, who all take an active interest in the welfare and prosperity of the N. T. U., and who are gradually spreading the District over this and the adjoining States.

A. L. WHIPPLE, *Dist. Director.*

M. L. MORGAN, *Dist. Secy.*

SACRAMENTO DISTRICT.

On Monday the 3d of April, a meeting was held by the operators of the Sacramento office, having in view the organization upon this coast, of a District of the National Telegraphic Union. After some discussion as to the proper means for bringing the subject before the telegraphers of California, it was referred to a committee consisting of Messrs. Allen and Kennan, with instructions to ascertain the views and feelings of California operators, and to invite their co-operation. A circular briefly setting forth the objects and advantages of the association, was issued by the committee and widely circulated throughout the State. Its reception was most favorable and encouraging, and on April 9th, at 8 P. M., a second meeting was held by telegraph for the purpose of organization.

There were present Messrs. Allen, Jaynes, Jacobs, and Kennan, of Sacramento, C. P. Hoag, of Placerville, Mr. Lovejoy, of Petaluma, Mr. Losh, of Suisun, Mr. Hodgdon, of Newcastle, and Mr. Crawford, of Nevada. Mr. Kennan was requested to take the Chair, and after a few introductory remarks moved the adoption by the meeting of the Constitution and By-Laws of the N. T. U., which motion was unanimously carried. The meeting then proceeded to the election of officers, which resulted as follows:

For District Director, Geo. Kennan, of Sacramento; for Local Director, J. F. Allen, of Sacramento; for Dist. Secretary, C. P. Hoag, of Placerville, and for Dist. Treasurer, F. Jaynes, of Sacramento;

The following motions were made and carried: By Mr. Jaynes, that an assessment of three dollars, to include the initiation fee, be levied on each member for incidental expenses. By Mr. Jaynes, that District officers be authorized to make such expenditures of District funds as necessary for stationery, printing, postage, &c., until the next meeting of the District. By Mr. Kennan, that a committee consisting of Messrs. Jaynes and Allen, be appointed to extend the circulation of *The Telegrapher* upon the Pacific coast, and to report at the next meeting. Mr. Kennan proposed for membership Mr. Shearer, of San Juan South, and Mr. Skidmore, of San Mateo, both of whom were unanimously declared members. There being no other business before the meeting, Mr. Jaynes, after a few pertinent remarks, moved an adjournment until 7 P. M., on the first Sunday in May, unless sooner convened by the District Director. Motion carried, and meeting adjourned.

GEO. KENNAN, *Dist. Director.*

C. P. HOAG, *Dist. Secy.*

DETROIT DISTRICT.

The regular monthly meeting of this District was held at 4 P. M., 8th, inst., the District Director in the Chair, seven members present. The minutes of last meeting read and approved. The Treasurer read a letter from Mr. Patrick, Treasurer N. T. U., in place of regular report. James Bay and C. N. Scott were elected members by a unanimous vote. Mr. C. Fox offered the following:

Resolved, That this District do approve of the course of *The Telegrapher* on the subject of "Lady Operators," as indicated in the February number of that journal.

After quite a lively debate, occupying more than an hour's time, the resolution was adopted.

The District Secretary was authorized to purchase the necessary number of District By-Laws, to supply the members of this District.

After transacting some other business of minor importance the meeting adjourned.

T. W. PRIEST, *Dist. Director.*

C. CORBETT *Dist. Secretary.*

UTICA DISTRICT.

Meeting called to order at 9.15 P.M., May 6, the District Director in the chair. The minutes of the previous meeting were read and approved. Several communications were then read, and quite a long discussion on local affairs took place.

Mr. Bailey proposed for membership the following: D. C. Chase and John Kelly, Syracuse; H. A. McFarland, Oxford; R. McChesney, Utica. They were unanimously elected.

Mr. Pike moved that the By-Laws of the New York District be adopted for use in this District, which was carried.

On motion of Mr. Pike the meeting adjourned at 10 P.M.

J. B. SABINE, *Dist. Director.*

H. L. BAILEY, *Dist. Secy.*

To the Editor of *The Telegrapher*:

Some of the country members of our District, and perhaps fellow Districts, may have been surprised at our long silence, and think we are defunct, as our District proceedings have not been published in *The Telegrapher* for some time. But I assure them we still live, though under some difficulties. Owing to the migratory habits of some of our members, who, when they joined us, resided in this city, but have since been scattered over the country, one even as far as Georgia, we have not been able lately to scare up a quorum. Last Saturday evening, however, we held a meeting, and had the pleasure to enroll as members four new candidates, among whom were Messrs. D. C. Chase and John Kelly, of Syracuse. They have been trying for some time to start a District in Syracuse, but not having been able to overcome the inertia of indifference with regard to this subject that exists among the operators there, they have joined us, and intend to stay until after September, when they will try again, and they hope with more success, to organize a District in that city. In the meantime we expect others from that place will join us, thereby enabling us to send a delegate to the Chicago Convention. They will be transferred to their own District as soon as it is formed, if they wish.

I have often wondered why no District has as yet been formed in the city of Buffalo, N. Y. It is a splendid field for a very large District; I think something ought to be done to stir them up there, and induce them to join the Union. Do they know there is such an institution in existence? How is it that they are so blind to self-interest as not to see the importance of a Union (of our sort) among operators? Hoping that every good operator in the United States will eventually become a member of the N. T. U., I remain yours,

J. B. S.

BOSTON DISTRICT.

Pursuant to adjournment the meeting of this District was held on Saturday evening, May 6, in the room of Mr. Supt. Keith, who has again laid us under obligation for his kindness.

The Director called the meeting to order at 8 o'clock. Owing to the absence of the Secretary, Mr. Roberts was selected to fill that position.

The minutes of the previous meeting were read and approved, after which the Director presented his quarterly report, from which we make the following extract:

"Since my last report five new members have been admitted, two members have been transferred to this District, one member has withdrawn, and three have been transferred to other Districts, making the number of actual members at the present time, forty-eight. Of this number thirty-five have paid their dues in full to May first, and thirteen are in arrears."

The committee appointed to select a room for the permanent use of the District, made their report, which was accepted and the committee discharged.

The Director was authorized to engage the room named in the committee's report, and to make special assessments on the members to pay for the same.

The Committee on By-Laws for the government of the District, made their report, which was adopted, with the exception of the last section, which provided that no amendment could be made without previously giving the District one month's notice. The committee received the thanks of the District for the very able manner in which they had performed their duties.

The Director presented the names of Mr. Roscoe Sprague, of the United States Company's Boston office, and Mr. M. C. Blanchard, of the Vermont & Boston Company's White River Junction, Vt. office, who were unanimously elected to membership, and thus we bring Vermont into the folds of the Union.

The subject of the coming annual Convention was then taken up, when a general discussion ensued.

Mr. Wheeler spoke at some length on the importance of having the sentiments of the District fully understood by the delegates before proceeding to the Convention.

He also thought that we should have some settled plan of action for their guidance, and concluded by remarking that it was time to commence discussing those matters.

Several gentlemen spoke in favor of Mr. Wheeler's views.

Mr. Roberts thought it would increase the interest taken in these meetings to hold sessions regularly once in two weeks for the purpose of discussing matters of general interest to telegraphers.

A motion was then made by Mr. Albee, to hold meetings hereafter on the first and third Wednesdays of each month until after the next Convention.

After remarks by several gentlemen, the motion was unanimously adopted.

On motion of Mr. Labonte, at ten o'clock the meeting adjourned.

H. W. WHEELER, *Dist. Director.*

D. C. ROBERTS, *Secy. pro tem.*

LOUISVILLE DISTRICT.

Meeting held on May first. Roll called. The minutes of the last meeting read and ordered to be filed. Treasurer's report was handed in, which showed

Receipts:

By Amount in hand last Report.....	\$30 75
" Receipts for Local Fund.....	3 50
	— \$34 25

Expenditures:

To Paid for Blank Book.....	1 20
" Cushing's Manual	75
	— 1 95

Balance in Hand..... \$32 30

The following applications presented for membership were voted on and admitted: Geo. W. Dyer, Bainbridge, Ind.; John D. Carter, Orleans, Ind.; A. P. Prichard, Covington, Ky. A copy of District By-Laws was read by Mr. Flanagan. The Chair appointed a committee composed of Messrs. Vestal, Morris, and Flanagan, to examine and suggest a code of By-laws for the use of this District.

A note was read from Mr. J. M. Haas, of New Albany, Ind., asking to be relieved as a member, he having quit telegraphing. He was allowed to withdraw.

Motion of Mr. Ellison and seconded, that a committee be appointed to draft a set of resolutions showing the feelings and regret of this District at the death of the late Capt. Sam'l Bruch, Sup't S. W. T. Co., and Mil. Sup't Gov't lines. Carried. Messrs. Sheldon, Flanagan, and Ellison were appointed and ordered to report at a meeting to be held for that purpose, next Monday evening.

Moved and seconded to adjourn.

W. DE GROVE, *Dist. Director.*

J. H. BARD, *Dist. Secy.*

CHICAGO DISTRICT.

The meeting was called to order at 3 P. M., May 7th. No quorum being present, the meeting adjourned for one month.

E. B. CHANDLER, *District Director.*

GEO. MAKLE, *Dist. Secy.*

WASHINGTON DISTRICT.

The seventeenth regular meeting of this District was held this evening (May 6), at 8 o'clock. Mr. A. Flowers, of the U. S. Line, Washington, was elected a member.

The Committee on By-Laws reported adversely to adopting those of the New York District, and recommended that the existing By-Laws be neatly engrossed and suspended in the meeting room of the District. Report accepted and Committee discharged.

The Secretary's resignation being offered, was at first laid on the table, but on his renewing it was accepted, and Mr. M. Marean elected his successor.

The District signified its approbation of the services of the retiring Secretary by a unanimously passed complimentary resolution, after which the meeting adjourned at 9.45.

Unpleasant feelings having arisen from the District's occupying its present meeting room, a Committee was appointed to procure another.

WM. H. H. CLARKE, *Dist. Director.*

FRED. W. ROYCE, *Dist. Secy.*

BALTIMORE DISTRICT.

The meeting was called to order at 3 P. M., on the 7th inst., the District Director in the Chair. Roll called, thirteen members present. The minutes of the previous meeting were read and approved.

A copy of the District By-Laws was presented and read, and upon motion of Mr. Crumbacker, were adopted for the government of this District, and a sufficient number of copies ordered.

Upon motion of Mr. Williams, a committee of three, Messrs. Riley, Crumbacker and Kerner, were appointed to fill the blanks in the new By-Laws.

Mr. David Lovenstein was proposed and duly elected a member of this District. There being no further business the meeting adjourned at 4.05 P.M.

A. WILSON, JR., *Dist. Director.*

M. H. KERNER, *Dist. Secy.*

PITTSBURGH DISTRICT.

The Treasurer has notified us that the above-named District has deposited its initiation fees, but we regret to announce the organization proceedings have been mislaid, and we are therefore unable to print them, as we very much desired to do.

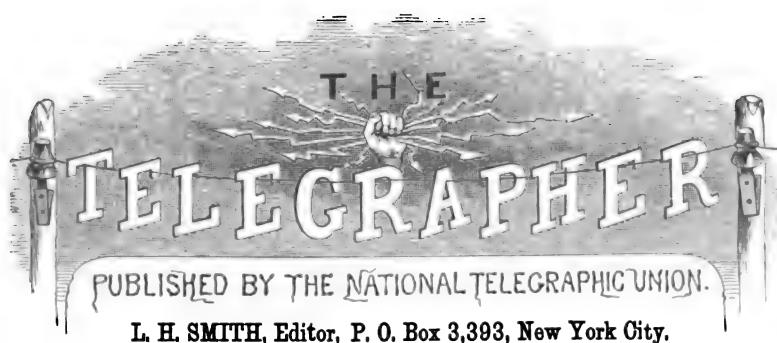
CASELLI'S AND BONELLI'S TELEGRAPHIC APPARATUS.—We have been shown specimens of the above-named telegraphic apparatus. That of Caselli is described in another column of this issue, and has been referred to before in this paper. It seems to be nothing more than has been frequently attempted before, but has, perhaps, been brought to a greater perfection, and its field extended by chemical appliances. It is still open to the old objection of preparing the copy before transmission. The specimen we have before us proves that the prepared copy must be distinctly written, or else the received copy will be blurred and indistinct.

Bonelli's apparatus produces similar work, except that the received copy appears in Roman capitals, on instrument paper, instead of fac-simile writing. We have neither space nor time now to mention the probable objections to these two systems for rapid commercial business, but will endeavor to do so hereafter. We will merely remark here, and now that the foreign journals in comparing its speed with the Morse and other instruments, greatly underrate the Morse, and entirely ignore the House and Combination printing instruments.

The Electrician gives the following description of Bonelli's instrument: "Let the reader suppose himself to be the operator; before him he will find an oak table, 6 or 7 feet in length, 17 or 18 inches wide; along the centre of this table runs a miniature railway, terminated at either end by a spring buffer, and spanned midway by a kind of bridge 6 inches in height, and 2½ or 3 inches wide. Upon this railway is placed a species of wagon 1 yard long and 5 inches wide, 3½ in height, running upon four brass wheels. On the surface of this wagon are two long rectilinear openings, the one occupying the upper half and destined to carry the message which is to be sent, and the other occupying the lower half, and intended for the message which may be to be received, upon the bridge are two small metal combs, each containing five insulated teeth, answering in number to and connected with the insulated conductors of which the line is formed. The combs differ from one another, the one which is to despatch the message, formed of teeth, having a certain freedom of action, is on the side of the bridge farthest from the operator; the other, or writing comb, consisting of a similar number of teeth fixed in a block of ivory, and forming a perfect line, rests with a slight but regular pressure transversely on the paper, and occupies the nearer portion of said bridge. We will suppose that the tables have been tested, and that a number of messages have been sent for despatch; these messages are distributed to a given number of compositors, who set them up in ordinary type, with great rapidity; the first that is finished is handed to the operator, whose wagon has already been pushed to the upper end of the rail, and is held there by a simple catch, he places this despatch in the opening destined for it, and in the second opening he places a plate of metal upon which has been laid four, five or six strips of paper prepared with a solution of nitrate of manganese; this done, he turns a small handle and watches; if the operator at the other end has done his work, the wagon is at once freed from the catch, and is set in motion by a simple weight, the pace being regulated by a fan; the type of which we have spoken is thus brought under the action of the despatching comb, and runs lightly under its teeth from end to end; one-half of the journey being made, the writing comb comes in contact with the prepared paper. If the operator at the other end has had a message to send, it will have been printed in clear, legible characters, of a deep brown color, answering with unerring fidelity to the forms over which the corresponding type comb has passed, while the operator (the reader) knows that his message has as surely been received; the message is stripped off, the wagon remounted, the type box changed, and the process of transmission and reception repeated. All this which takes so long to describe is so rapidly accomplished that from 450 to 500 messages may be despatched per hour, the passage of the wagon occupying 10 to 12 seconds, during which time a message been sent and received at each end of the line."

Animal Electricity.

PROFESSOR BECKENSTEINER, of Lyons, in investigating the origin of the electrical power exhibited by the Torpedo, Gymnotus, &c., was struck by the analogy of the cells of electric fishes with certain minute vessels, united by nerves and moistened by mucus, which exists in nearly all kinds of animals, and are found most developed in man at the period of the greatest strength, but collapsed and dried up in old age. He began a series of experiments, and after three years' investigation has lately published the following results: When the temperature is below 32°, the wind north and the sky clear, expose a cat to the cold until his fur lies close to the skin and appears greasy; expose your hands to make them equally cold; then take the animal on your knees, apply the fingers of your left hand on its breast, and pass your right hand down its back, pressing moderately; at the fifth or sixth pass you will receive a slight electric shock. At first the cat appears pleased, but as soon as it feels the shock it jumps away, and will not stand a repetition of the experiment during the same day. After the experiment the animal looks tired; some days after it loses its appetite, seeks solitude, drinks water at rare intervals, and dies in a fortnight. The same experiment has succeeded with rabbits—they die the same day. It is unsuccessful with dogs. Once only it has been made on a cow; she was tied to an iron ring, the ground was frozen, one hand was placed on the breast and the other passed down the back, when such an electric shock occurred that Mr. B. was thrown to the ground. The cow appeared very much irritated, but it was impossible to know if she suffered from it, since she was killed by a butcher three days afterwards.—*Telegraph Review.*



L. H. SMITH, Editor, P. O. Box 3,393, New York City.

MONDAY, MAY 29, 1865.

PRELIMINARY.

On the 4th of September next, the second Convention of the National Telegraphic Union will meet to transact its annual legislative business. In order to have this done as it should be, it will be necessary to select the best material for its composition. The first and the Constitutional Conventions were a mixture of good and indifferent material. The work was upon the shoulders of a few. This should not be the rule. A Delegate is delegated to work for the good of the whole as well as for the members of the District which he represents. He should not be careless, neglectful, or indifferent, for if he is he cheats those who trust him, and robs the treasury of the Union of his expenses.

The Constitution says: Art. II, Sec. 1.

"§ 2. The Convention of Delegates shall be composed of members chosen annually by the several Districts.

"§ 3. No person shall be a Delegate who shall not have attained the age of twenty-one years.

"§ 4. The number of Delegates shall not exceed one for every twenty-five members, but each District shall have at least, one Delegate, and one extra Delegate when the exact proportion shall be ten members in excess, to be elected as follows:

"§ 5. On the first Monday in August, each member shall proceed to vote for Delegates. The vote of each member shall be sent either in writing or by telegraph to the Director of the District to which the member may belong.

"§ 6. The Director of each District, upon the receipt of all the votes contained in his District, shall, after counting them, issue to those candidates who may have received the largest number of votes cast, respectively, certificates of election.

"§ 7. When vacancies happen in the Convention of Delegates, the Director of the District in which the vacancies occur, shall order an election to fill such vacancies."

It will be seen by the first clause of the above, that the time of Delegates to the last Convention will expire on Saturday night, the 5th of August next. The Convention is supposed to be always ready to transact business if necessary, either by letter or telegraph, during the year for which the Delegates are elected; therefore, the old delegates hold office until the new are elected.

Chose your best and most active members for the responsible post, be they twenty-one or forty years of age.

Every District can be represented, even if they have but the minimum number (5) of members, and are not entitled to two until their members reach the number of 35, and three when they reach 60 and so on.

Every member of the several Districts should be particular to vote either in writing or by telegraph, to the Director of the District to which he belongs, or by proxy, through some reliable member.

The Delegates must be elected in accordance with the Constitution, on the *first Monday in August*. Last year many Districts held their elections at any time which suited their convenience, or whenever the Director chanced to think of the necessity. This was clearly wrong, and had the Convention done their sworn duty, they would have excluded those Delegates so elected unconstitutionally. We expect the next Convention will be sharp in this matter. It is now time to can-

vass the merits of the members as regards their fitness for office of Delegates, and put them in nomination at the July meetings, so that all may act advisedly.

By an act passed at the last Convention, (see line 53, page 7, of *The Telegrapher*), District Directors are to be, whenever practicable, elected as one of the Delegates from every District. It is fair to presume that one of the best men of a District is selected to fill the position of Director, and whenever this is the case, it is your simple duty to send him as your representative; for few, or none of the other members know so well what is needed as he who conducts your affairs safely through the year; but care should be taken that no inefficient person is sent to Chicago, simply because he has the good fortune to be in the honorable position of Director. Care should also be taken to select members from different parts of a District, so there may be no failure to be present at the Convention. In large Districts made up of operators from different companies, one should be selected from the different offices, so that their absence will not cripple the companies, or prevent their attending the annual meeting. Care should be taken that every Delegate elected is able to attend, and not permit one Delegate to vote from one to three proxies, as was the case last year. Those Districts in California which are too far off to be represented by their own members, should select early, some member of some eastern District in whom they can place confidence, to represent their interests in the deliberations of the chosen few, and should send, either by letter or telegraph, their wishes and instructions.

Let us see for once, if we cannot bring together a working majority who will care more for their legislative duties than the pleasure of friendly intercourse until the work in hand shall have been accomplished. We would advise the return of as many of the working members of the last Convention as possible. There will be full three days' work to be done.

It is our intention to continue upon this subject until the whole ground is gone over, so that none can blind their eyes to, or plead ignorance of, their duties.

It will be seen by reference to Art. IX., Sec. 1, of the Constitution, that District officers are to be elected upon the same day as the Delegates. The clause reads as follows:

"The officers of District organizations shall be chosen on the first Monday of the month preceding the close of the official term. The District Director at or without a special meeting, as he may determine; the Local Director at a meeting of the members of each office; elections to be governed by the same rules as the elections of general officers of the National Convention."

The official term of all officers ends with the close of the conventional year, the first Monday in September. Clause 2, Sec. I., Art. II., of the District By-Laws, reads as follows:

"Any member who is in arrears at the time of the election for District officers shall not be entitled to a vote at such election."

The latter clause does not prevent any member from voting for Delegates. The new officers do not, of course, enter upon their duties until the adjournment of the September meetings, in order to give the old officers an opportunity to make their annual reports, and settle the affairs of their respective offices.

We cannot agree with our correspondent "B.", whose letter we published in our March issue, (page 73.) The "careless inattention" of those persons whose conduct he attempts to excuse, was a studied indifference, and was as near an approach to perjury as possible. These expelled members "solemnly pledged their honor to conform to, and support the Constitution, By-Laws, and other regulations laid down for the government of the Union," and then not only neglected, but refused to fulfil their sworn obligations, and treated the officers whose duties it was to collect the dues and fines, with insult and oaths. They were borne with until forbearance ceased to be a virtue. It was the sworn duty of the Directors to present them as delinquents, of the members of

the Districts to expel them, of the Executive Committee to approve such expulsion, unless it were proved the action of the Districts was wrong: and we considered it our duty to publish their names as we had little choice in the matter, and considered such a course anything but derogatory to the Union. We know the effect has been salutary, which gives us confidence in the system.

There is a simple way for one to withdraw from the Union with honor, should they feel sufficiently aggrieved, or for sufficient reasons feel so inclined, and that is, pay up and resign like a man.

THE Philadelphia District at their April meeting, decided to hereafter hold their meetings on Sundays. The same day has been used by several Districts for the same purpose, a custom which we greatly regret to see.

Several attempts have been made by members of the New York District to effect the same object, which we have steadily combatted, and have been gratified to find a majority in our favor. When the members of any District are so work driven that they cannot devote one evening a month to the legislative duties of their Districts, they better postpone their meetings until their work slackens.

The least we can say against Sunday meetings is, that they are demoralizing. Telegraphers think little enough of the Sabbath without having organized meetings to further desecrate the day. There are members enough "off duty" every meeting night in every District to insure a full attendance, and church-going is certainly not their excuse for non-attendance.

We consider these Sunday meetings pernicious and dangerous to our prosperity, and an argument in favor of the "Sunday work" now exacted by telegraph companies of their employees, which we some day expect to see abolished.

We appeal to the leading members of every District to oppose Sunday meetings for transacting the regular monthly legislative business.

FOREIGN PAPERS.—We are in receipt of a copy of *The British Columbian*, published at New Westminster, B. C., giving an account of the first telegraph line in that colony; also a copy of *The British Colonist*, published at Victoria, V. I., noticing the extension of the California lines to that island: also a copy of the *Revista de Telegafos*, published in Madrid, Spain. We return our thanks to Mr. W. O. Lewis, for a copy of *The Richmond Whig*, No. 17, vol. 1, under the new order of things.

THANKS.—Our thanks are returned to Messrs. Trent, Fillmer & Co., Engravers on wood, 37 Park Row, for a copy of a Cenotaph which they have published to the memory of our martyred President. It contains a poem from the pen of Col. A. J. H. Duganne, the assassination and death-bed scenes, the goddess of liberty, and a freed slave mourning over the dead body; a broken staff, a bust, and unfinished monument, and the President splitting the rail, rebellion. Also for a copy of their In Memoriam, a book of 21 pages, containing President Lincoln's Farewell Speech at Springfield, the Proclamation of Emancipation, Address at Gettysburg, his second Inaugural, his favorite poem, "Oh! why should the Spirit of Mortal be proud," prefaced by a letter from Mr. F. B. Carpenter, the artist. Every lover of our dead President should possess himself of these mementoes. Price 50c.

MR. RUFUS B. BULLOCK, who was, at the time of his leaving telegraphing, six years ago, probably the best printing operator in the United States, has recently been in town after a sojourn in Dixie since 1859. He has been in charge of the Adams Express in the South, and now turns it over to the old Company in a good condition, considering what it has passed through the last four years. We believe his stay in the South was prompted by a desire to preserve the property of his employers, and now has the satisfaction of turning it over to the Company. He has returned to Augusta, Ga., but will come North again in June.

WE WERE in error when we stated in our last issue that the well-built line which runs through Park Row and Broadway, belongs to the Bankers and Brokers' Company. It is the property of the Insulated Telegraph Co. Lines, whose office in this city will open the middle of June, at 72 Broadway. This is a new line from this city to Boston, using insulated wires.

TELEGRAPHIC MISCELLANEA.

MAJOR FRANK L. PORE, of the Russian Overland Telegraph Company, arrived in San Francisco from New York, on the 27th of April, and left the following week for Fort Youkron, on an engineering expedition, accompanied by Mr. Kennicut, the explorer.

TELEGRAPHIC.—The Directors of the Electric and International Telegraph Company, (London,) report that the progressive advance in the revenue of the Company has continued with slight interruption during the six months just completed. The net profits for the half year are £54,076 against £50,568 in the corresponding period of 1863. The Directors again recommend a dividend of four per cent, for the half year, on the stock and shares of the company. This will leave a balance of £14,831 to be added to the trust funds, which will then amount to £54,672—*The Builder*

AN ENIGMA.—I am very queer in my ways. To be perfect, I make trouble, and when perfect all operators dislike me, they never fail to recognize me whenever we meet. They are often like me themselves, and are continually using my name, which is composed of five characters of the Morse alphabet.

LIGHTING GAS BY PAGE'S INDUCTION COIL.—It is quite probable that but for the death of the inventor, Mr. Arch. Wilson, his apparatus for lighting all the gas jets of a theater, or other large buildings, at the same instant by means of Ruhmkorff's—or more properly, Page's—induction coil would have been by this time in general use. It is said to have been in constant use in the Music Hall at New Haven, and in Allyn Hall at Hartford, for about four years, and to have worked without failure and with satisfaction at all times. We learn that the patent is in the hands of Mrs. Arch. Wilson, of New Britain, Conn.—*Scientific American*.

MR. PRESCOTT, in his *History of the Electric Telegraph*, gives the following as the rapidity of transmission on the several instruments in use in 1860:—Cooke and Wheatstone's needle telegraph of Great Britain, 900 words per hour; Froment's dial telegraph at France, 1,200; Brequet's dial telegraph, also French, 1,000; Siemens' dial telegraph, formerly used on the Prussian lines, 900; Bain's chemical in use between London and Manchester, and formerly, to a considerable extent in the United States, 1,500; the Morse telegraph, in use all over the world, 1,500; the House, Hughes', and the Combination printing instruments, used in the United States, to a limited extent, and in Cuba, 2,800. The last three systems are American inventions. Thus it will be seen that to our country is due the credit of inventing the most rapid and the most universally used telegraphic system.

A PRIZE.—THE American Philosophical Society of Philadelphia have awarded the Magellanic prize to Pliny Earle Chase, of that city, for the discovery of numerical relation between gravity and magnetism. The prize is a gold medal of the value of ten guineas sterling.—*Scientific American*.

MEDALS FOR INVENTIONS IN FRANCE.—We find in *L'Invention* a list of the awards of silver and bronze medals recently made by the French *Societe d'Encouragement Pour l'Industrie Nationale*. The award of a silver medal was awarded to M. E. Gaiffe for an improved process of engraving copper rollers for printing calico by magneto-electricity. The process is not explained, but an explanation is promised at some future time.

DOMESTIC BLISS.—There are evidences of domestic bliss in the following telegram, sent by a Wall-street broker to his wife: "Send John. Also demijohn Kiss Matty. Spank Arthur. Don't fret."

ELECTRO MAGNETS.—Mons. Corlier makes electro-magnets with wire that is not insulated by a covering of silk or other substance; he merely separates the layers by paper; and finds the magnet twice as strong as one made with covered wire.

IT WAS IN 1846 that Faraday made the great discovery that all bodies are subject to the force of magnetism, some being drawn into positions parallel with the magnet, and others at right angles.

IN THESE LAST DAYS there has been in Paris an M. Von Weber, representing the interest of some one of the German Governments in the European telegraphic conference, still or lately holding at Paris. Note, now, that this M. Von Weber is the son of the Weber, of Freyschutz Weber, of Oberon Weber, of Weber in fine. This junior Weber being here in Paris as representative of the telegraphic interests of his little German country, does meantime bring with him in his private pocket the "partition" of a comic opera entitled "Peter Schmoll." The libretto is lost—no great loss if one gives saddened attention to the libretto of certain of Weber's compositions, in respect of which our constant ejaculation is: Why were these also not lost!—*Paris letter*.

THE N. Y. HERALD, in its obituary notice of Jacob Little, the great stock broker, says: "There was one fact in Mr. Little's life which did not indicate his usual sagacity and foresight. When in 1847-8 an effort was made to extend the telegraph lines, just then introduced by Prof. Morse, he was asked to take some stock in a line between New York and Boston. Very few capitalists at that time had much faith in the new system of communication, and Mr. Little less than others. 'Mr. Little,'

THE TELEGRAPHER.

said a gentleman to him, 'the telegraph lines will cover the country like a network before you cease to exist, and will become the great opposition to the U. S. mails.' 'Nonsense, nonsense,' replied Mr. Little, 'no one will invest money in them. Look at the poles and wires! They are not safe; the boys in the streets can destroy them as easily as they would a kite-string. No, sir,' continued Mr. Little, 'I will give you a hundred dollars as a gift towards building a line, but I won't invest a dollar.' Fifteen years afterwards he admitted to the same gentleman the great mistake he made, and added that he could then have owned most of the telegraph lines of the country.

We have upon our table a sample of a cable recently manufactured by the Bishop Gutta Percha Company for the American Telegraph Company, for the crossing of the Susquehanna river, at Havre de Grace, Md. We have examined it carefully and pronounce it the best cable of American manufacture we have ever seen, and fully equal to any of foreign manufacture we have yet examined, and it has been our good fortune to examine samples of nearly all the important cables laid on the other side of the Atlantic.

The cable in question seems most perfectly proportioned. The conductors are three in number, and formed of seven No. 20 copper wires each, twisted like a rope—long lay—Each conductor is equivalent to a solid No. 12 wire, and gives about three times the conducting power of the heaviest air lines, therefore atmospheric electricity will most likely pass through it harmlessly. Its flexibility is very great, and it is almost impossible to be so broken as to destroy the continuity.

The insulation is composed of three coatings of pure gutta percha, $\frac{1}{8}$ of an inch in diameter which cannot be improved unless, possibly, by adding another eighth of an inch or another coating of gutta percha. The bedding for the armor is Russia hemp, tarred with the best Stockholm tar. The armor is composed of 14 No. 4 galvanized iron wires, laid up spirally, which, although very heavy, weighing about seven tons per mile, renders the cable sufficiently pliable to be handled with as much ease as a heavy rope.

It is with pride and pleasure that we recommend the Bishop Gutta Percha Company to the favorable consideration of all parties who are obliged to use submarine cables. We are proud because it is an American manufacture, and we take pleasure in recommending the work of this Company, for it is the best yet made in this country, and fully equal to foreign manufacture.

A LETTER has been received in this city from Mr. Ed Conway, Ass't Eng'r Colins' Overland Telegraph, dated New Westminster, March 7th, 1865, in which he says: "I receive *The Telegrapher* regularly, and think it a credit to the fraternity, and those connected with it. I have just returned from San Francisco, where I have been in consultation with Col. Bulkley. Since my return I have built a short line from this city to the Governor's residence. It being the first telegraph in the colony, the inhabitants are at a loss in what way to show their gratitude. Mr. J. W. Pitfield is with me, and will be agent for the Company here. We have large quarters, and have already made preparations to commence operations, on a large scale. There will be no serious trouble in our constructing a line for the first 500 miles, and all I ask to run a line through British Columbia is eight or ten working months. Of course, while I am constructing others will be hard at work on the other end. Weather is now pretty cold, and the river full of floating ice. I have already done a good deal in the way of exploring, and feel well posted in the geography of the country. 73 to all my friends and colleagues."

TUE GREAT FLOOD.—We have received the following particulars from Mr. W. H. Heiss, Sup't of the N. Y. & W. District of the Am. Co.'s lines:

"The cables used by the American Telegraph Company to cross the Susquehanna river, at Havre de Grace, Md., were broken in the afternoon of the 18th March last, by the great strain on them, from trees and heavy timber brought down by the great freshet anchoring in them.

"Many trees released from the cable measured two feet in diameter. So twisted were the cables around them and the *debris* that the axe and saw were required to effect a disentanglement, and the labor of a number of men to accomplish the task.

"The river commenced rising on the 15th March, and on the 18th had attained a height sufficient to sweep away the Conomingo Bridge, some seventeen miles from Havre de Grace. This bridge is said to be about 30 feet above the usual height of the river; one entire span of it was landed on the flats, two miles below Havre de Grace.

"Immediately after our disaster was known, offices were opened at Perryville and Havre de Grace, and business exchanges made about every twenty minutes, by tug-boats. Eighteen operators worked day and night most cheerfully till continuous communication was restored.

"It was found impossible to underrun the cables to the places where they were broken. These places were in the deepest part of the river, about 600 feet from the Cecil shore. The freshet brought down immense quantities of soil, the deposit of which over the cables, defeated all efforts either to raise them, or to drag out

the pieces, notwithstanding great derricks and powerful steam-tugs were used for that purpose. There was no alternative but to cut up the cables as they were found to pieces, and thus make cables of parts as far as they would go, and at once proceed to re-lay them.

"The wind and current being so strong, it was found impossible to lay a cable before the 23d, on which day one was laid, and immediately afterwards two others which had been received in pieces. Soon afterwards a fourth was added (made out of recovered pieces), which gave the company their usual number of wires at this point."

DUFF'S COLLEGE.—*Messrs. Editors:* We have so frequently to reply to the inquiry, "Do you teach telegraphing?" that we desire to state through your columns that we do not. Knowing nothing of the business ourselves, with a view to engaging in it, we made inquiry at points where it has been taught in colleges for several years, to ascertain how far they have succeeded in making competent operators. Our correspondent in New York inquired of the American Telegraph Company if they had employed any of the college educated operators. They replied, "We have tried them, but have never found any of them competent." They also state that they have made arrangements to educate their own operators, and it takes from five to eight months to do it. At the P. C. R. R. Co.'s office, in Philadelphia, the manager told our correspondent that a number of the college taught operators had been tried in their office, but none of them could either receive or send a message. At the Atlantic and Ohio Telegraph Company, the manager (who had sixteen years experience in the business) stated that numbers of applicants for employ came from the colleges, but they were all incompetent. An intimate friend of his had his son educated in operating in one of them, but upon trial in the office he could do nothing. This manager said it would take from six to twelve months to learn the business. He doubts if it can be successfully taught in schools, giving reasons which I cannot detail, not understanding the operator's technicalities. From the above information our friends and patrons will understand why we do not, like our contemporaries, undertake to teach them telegraphing in from two to three months, and guarantee employment to all who qualify themselves to operate. When we learn that competent operators can be made in schools we may engage in the business,—not before. In the meantime we shall continue to give our undivided attention to business that we understand—making competent accountants.—P. DUFF & SON, Principal, Duff's College, Pittsburgh, Pa.—*Pittsburgh Chronicle.*

ATLANTIC CABLE.—A letter from Mr. Geo. Saward, Secretary of the Cable Co., to Mr. Wilson G. Hunt, dated London, March 25, says:

"In reply to the memorandum dated the 25th February, and signed by yourself and other American gentlemen, recommending to the London Board the engagement of Captain James Anderson, of the steamer China, as the commander of the Great Eastern, I am requested to state that the Directors in London entirely coincide with their colleagues in America, upon this subject; and it will be interesting to gentlemen on your side—as confirming their judgment—to know that it had already been decided here, before knowing that any view in favor of Captain Anderson was entertained in New York, that he was the most proper person for the office, and the permission of Sir Samuel Cunard had been asked in order to allow of an offer being made to Captain Anderson.

"It has now been arranged that Captain Anderson shall take charge of the Great Eastern immediately after his re-arrival in England with the China, on the 2d May.

"You will be pleased to know that by the time you receive this, upwards of one thousand eight hundred miles of our cable will have been completed in a perfect state, and of a quality in every respect vastly superior to any cable that has ever yet been manufactured.

"We shall take to sea two thousand three hundred miles altogether. The remainder is being made at the rate of eighty miles per week.

"About one thousand miles are coiled aboard the Great Eastern, and we expect that by the end of May the whole will be completed and on board, so that by the third week in June the machinery and every appliance for the use of the engineers may be in its place and ready for sailing; and in a month from that time I trust you may learn that our two great nations are permanently united by the electric wire."

The total length of the Atlantic cable made up to close of work Friday night April 7th, was 1,993 nautical miles, and of this quantity, 1,400 have been shipped on board the Amethyst and Iris for being shipped on board the Great Eastern, at Sheerness.

THE STORY which got abroad some weeks ago of the drowning of seven telegraph operators in the lower bay, was a heartless joke, by some reckless young fellows who did not intend it to go beyond the persons upon whom it was perpetrated. Consideration for the feelings of their friends ought to have staid their mad pranks and taken the cunning from out of their right hands.

THE UNITED STATES COMPANY have removed their main office from 26 Nassau street to 17 Broadway, one block below the American Company's main office, where they occupy all of the first, part of the second, third, fourth and fifth stories, and the front room on the fifth floor of the adjoining building. Their offices are fitted up handsomely, and are a vast improvement upon their former dingy office at the corner of Nassau and Cedar. Next year this Company will build a large building adapted to their wants upon the opposite side of Broadway. We consider they have made the same mistake the American Company did in not going higher up Broadway.

THE PEOPLES' LINE has removed its receiving office up stairs, and its operating room down stairs, to the first floor of 21 Wall street, formerly occupied by the old House lines, and then by the American Company as a Receiving Office. The old Receiving Office in the basement is now used for the Delivery Department.

PROF. SAMUEL FINDLEY BREESE MOSE reached his 74th year on the 27th of April last. He was born the 27th of April, 1791, at Charlestown, Mass.

MOBILE.—Application has been made for the necessary blanks for organizing a District of the Union in the city of Mobile, Ala.

A PETTICOATED FUGITIVE.—We take pleasure in announcing the sublime fact that Jeff. Davis, the runaway Executive of the late rebellion, for whose capture the United States Government offered the reward of \$100,000, was captured by the Fourth Michigan Cavalry, under the command of Colonel Pritchard, at Irwingsville, Ga., on the 13th inst., while escaping to the woods disguised in his wife's clothes. His high topped boots revealed him to the gallant troopers.

DRAFTED.—The following named operators were drawn in the recent draft: W. H. H. Clarke, and T. H. Sherman, of Washington; M. H. Redding, R. M. Mattocks, F. J. Grace, Jos. Knittle, of New York. Messrs. Mattocks and Knittle, as also L. W. Cogan, are now in the Department of the South, the former as Chief Operator of the Department Head-quarters at Hilton Head, and the two latter at Charleston and Savannah respectively.

PROMOTED.—Mr. E. B. Chandler, Director of the Chicago District, has been appointed Superintendent of the Fire Alarm, Police and Water Works Telegraph in Chicago. We congratulate Mr. C. on his good fortune. This system of lines was erected by John E. Kennard & Co., and is the largest in the United States. One hundred and fifteen miles of wire were used in its construction. It went into operation on the 15th inst.

OUR THANKS are returned to the editor of the Lyons (N. Y.) *Republican* for his very handsome notice of *The Telegrapher* and its editor. Also, to Mr. Watson, Mail Clerk of *The Tribune*, for his kindness in initiating us into the mysteries of newspaper mailing. We feel sure our readers will be benefited thereby.

ON THE 17TH INST. the Government were within 24 hours telegraphic communication with New Orleans, the wires being connected through to Mobile.

THE FUNERAL PROCESSION, &c.—The following figures are given as the result of an actual count of the people who marched in the late funeral procession in New York:

First Division and Military.....	10,155
Second Division.....	2,119
Third Division.....	3,556
Fourth Division.....	6,250
Fifth Division.....	3,836
Sixth Division.....	3,155
Seventh Division.....	2,491
Eighth Division.....	736
Total.....	31,948

This includes the different bands and drum corps. The line was three miles long, and a majority of the delegations marched twenty men abreast. It was a few minutes less than four hours passing a given point. Deducting the various stoppages, marching time was three hours and twenty-six minutes.

A Pilot Engine preceded the funeral train that bore the remains of PRESIDENT LINCOLN from Albany, through the State. Mr. A. L. Whipple, the Telegraphic officer of the N. Y. C. R. R. Company, at Albany, went with the Pilot Engine, carrying a small apparatus, so that if at any time an accident or interruption should occur, he could detach the wires on the line, and command communication at any point.

Within fifteen minutes after the assassination the wires were severed entirely about the city of Washington, excepting only a secret wire for Government uses, which leads to Old Point via Wilmington, Delaware. By this wire the Government reached the fortifications around Washington, first telegraphing all the way to Old Point, and then back to the outlying forts.

FEAT IN TELEGRAPHING.—On Wednesday, 19th ult., the day of Mr. Lincoln's funeral, an amount of telegraphing was done from Washington to New York unprecedented in telegraphic annals. The American telegraph office in Washington transmitted seventy-five thousand words of reports for newspapers in New York and elsewhere. All but about five thousand of the whole number of words transmitted were sent after 7 P. M., and it was all through at twenty minutes after 1 A. M., being at the rate of twelve thousand words per hour. Eight wires were in constant use, and nine part of the time. All this was accomplished in addition to the large amount of private business of the line. About ten thousand words of press news in addition were sent by the United States line, making a total of eighty-five thousand words sent to and paid for by the press of the country in one day from Washington alone, at an expense of about three thousand dollars. Thirteen thousand six hundred words were transmitted by the House printing instruments on a single wire after half-past seven o'clock. This is a feat in telegraphing which has never been equalled.

ON DIT.—The Western Union and the Illinois and Mississippi Telegraph Companies are to consolidate soon.

WE TAKE PLEASURE in recommending MESSRS. FRANCIS & LOUVEL, whose advertisement we publish in another column, to the attention of our readers. They are the printers of *The Telegrapher*, and do first-class work.

THE FIRE in Boston, on the 30th ult. which consumed nearly all of the Minot Building, does not interrupt the business of Mr. Chas. Williams, Jr.

RESIGNATION.—Mr. Sam H. Edwards has resigned his position in this city, with the American Co., and taken one with the Western Union Co. Mr. R. H. Smith has also resigned his position in this city with the former Company.

WE HAD THE PLEASURE a few days since, of shaking hands with Prof. House, the inventor of the Printing Telegraph Instrument which bears his name.

From him we learn that the improvement upon his first invention at which he has been engaged for several years past, is just complete, and will be ready for trial next fall. It is intended for wet weather work. We have been promised a description of this new machine so soon as the veil of secrecy with which it has been shrouded ever since its inception, is withdrawn. A patent for it is being secured in Europe.

SUBSCRIBER.—Send us your name and we will answer your question.

"ALLID."—Your poem is good, but too long for our columns; we may find room for it hereafter.

NOMINIS UMBRA.—Your poem is also too long and is now out of date. We had too much ahead of it.

J. H. S., BRUNSWICK, ME.—Your article is not quite in our line. We may publish it hereafter. We do not see the point of the letter attached.

MISSING PAPERS.—Those of our subscribers who fail to receive their papers should give us early notice, or else we shall be unable to make good their loss.

EGYPT.—The Delegates from the various Chambers of Commerce, to the number of about 120, were entertained at dinner by M. de Lessips, at Alexandria, on the 6th of April, and started for the Isthmus of Suez the next day. Mr. Cyrus W. Field, delegate from the Chamber of Commerce of New York, was among the number.

47,859. GALVANIC BATTERY.—Daniel J. Brown and Cyrus W. Baldwin, Boston, Mass.:

We claim the arrangement of the separate iron positive bars or rods, C, radially around, and in combination with the carbonaceous negative plate D, substantially as and for the purpose herein specified.

MARRIED.

At Plymouth, Ind., on 20th ult., at the house of the bride's mother, by the Rev. J. E. Chapin, Mr. R. C. Fulton, Ass't Chief Operator, U. S. Telegraph Co.'s Phila. office, to Miss Jennie E. Smith.

DIED.

In Boston, Mass., Sunday, 14th inst., Wm. F. Richards, Manager of the American Telegraph Co.'s office, aged 89 years six mos.

In ——— N. Y., 11th inst., John C. Bowles, operator in the Western Union Co.'s office.

QUOTATIONS OF TELEGRAPH STOCK.

CORRECTED BY JOHN HORNER, CASHIER, AMERICAN TELEGRAPH OFFICE, NEW YORK.		
Western Union, . . . \$100 shares . . . par.	Montreal, . . . \$100 shares,	115 gold
American, . . . " . . . 160	Nova Scotia, . . . 20 "	17 10
Russian Extension, " . . . 33	Vt. & Boston, . . . 50 "	25
Ill. and Miss, . . . \$50	Troy & Can. Junct 50 "	25
East India, . . . " . . . "	Maine, . . . 50 "	71
United States, . . . \$100 "	by the Company	98

A New Lightning Arrester.

We present to our readers in the adjoining diagram, a new invention for arresting lightning upon telegraph lines, and protecting from injury the fine wire helices of telegraphic instruments, and the insulation of submarine cables. The great want of some sure arrester of lightning has been felt nearly ever since telegraphing by electricity was first discovered, certainly since fine wire helices have been used for the formation of magnets. Various devices have been used to effect the object required, and have been partially successful. The most common, and cheapest device now in use is two brass plates separated from each other by a sheet of thin paper, or gutta percha tissue, one of the plates being connected with the ground, and the other—the top one—with the line. This kind of arrester is good so far as it goes, but requires close watching, particularly at the termini of submarine cables. It protects the helices and the insulation of cables from being burnt by powerful shocks of lightning, but does not prevent the frequent disturbance during summer months by slight shocks of atmospheric electricity, which, during the heated term become a serious trouble, making the wires almost entirely useless for hours at a time, and this sometimes continues in different directions for days.

Stearns' Paratonnerre is intended to effect this latter object as well as the former, and now we present another cheap and simple machine for the same purpose. The base of this machine is of hard wood, about $3\frac{1}{2}$ by 4 inches, upon which are screwed three screw-cups, A, G, and B. The centre standard G, is turned down for the space of an inch to the depth of $\frac{1}{2}$ of an inch. The sunken portion of this standard is covered with gutta percha tissue, which overlaps the upper and lower parts of the standard. Over this tissue, and within the sunken space is wound one coil of silk-covered helix wire, No. 22, the ends of which are secured in the standards A. and B. The line current enters on the wire l, and passes through the standard A, and thence around the standard G, through the coiled wire C, thence through the standard B, and wire m, to the instrument, battery, and ground. The standard G, is connected directly with the ground by the wire g. The bases of the two outer standards are placed as near the base of the middle standard as possible, without making a connection. This is done in order to insure the jumping of the shock if it fails to leave the fine wire C, which is supposed to be fine enough to produce sufficient resistance to force the overcharge of electricity off through its covering and the gutta percha tissue, to the standard G, and thence to the ground. This fine wire is also supposed to be sufficiently large to prevent fusing by any ordinary charge; but should it be fused it can be easily replaced in a few moments by anyone.

This little machine is the invention of Mr. W. O. Lewis, Superintendent of the American Company's Sandy Hook and Long Island lines. The inventor has had charge of the American Company's cables in the vicinity of this city for a number of years, and has met with marked success in protecting them from the ravages of lightning, and now produces this little machine as the fruit of his experience, and confidently expects it will prove as valuable to telegraphic instruments as he has found it for cables. A patent has been applied for.

The Pantelegraph.

We have several times had occasion to mention the Abbe Caselli's wonderful invention by which he not only transmits from one place to another the words of a dispatch, but the very handwriting of the person who sends it. As this new telegraphic system is now beginning to receive a practical application on a large scale, a description of the apparatus may not be uninteresting to our readers.

Imagine a cast iron frame shaped like an A, and a pendulum suspended from its apex. At each foot of the frame there is an electro-magnet, through the action of which the pendulum, which is two meters in length, oscillates between them, according as an electric current passes from one to the other. About the middle of the shaft of the pendulum there is a sort of arm or cam, which, at each oscillation causes a lever fixed to the cross-bar of the A to describe a circular arc. At the end of each oscillation this lever twice meets a click and spring work fixed to the same cross-bar. At the first stroke the metallic vibration is interrupted, and at the second a fork is set in motion, the prongs of which alternately act on the teeth of a ratchet, which is thus forced to turn, and in so doing communicates motion to an endless screw, cut into its own shaft. This endless screw causes two small chariots to move simultaneously, and each chariot carries a fine steel point or stylus. Now as, in virtue of the endless screw these two points move uniformly in the same direction—the progress of the one not differing from that of the other, even by a hair's breadth—it follows that whatever stroke will be described by the one will be imitated with mathematical exactness by the other. Now, suppose a metallic plate to be placed under each point, these plates being curved like the circular arcs described by the points, then, after a certain number of oscillations of the pendulum, these points in moving along will have described upon the plates as many parallel lines infinitely close to each other as there have been oscillations. Hence, the whole surface of the plates has been gone over. The plates are in direct communication with the ground by means of chains. One of the plates we will call the transmitter, and the other the recipient. The sender of a dispatch writes it with common ink on a sheet of tinned paper, and places it on the transmitter. On the recipient we place a sheet of chemical paper, impregnated with a solution of cyanide of potassium. Let us now set the apparatus in motion. The current being estab-

lished, so long as the point of the transmitter only touches upon the tin, the electric fluid will escape into the earth; but no sooner does it meet the ink of the writing, which is a non-conductor, than the fluid, not finding an escape there, will seek it along the wire which connects the two points together. Thus the point which works on the chemical paper of the recipient will produce a blue stroke on the latter for every black stroke on the dispatch; for steel in contact with cyanide of potassium, and under the influence of a positive current, produces blue. Hence, supposing the dispatch to have been written in black in Paris, and transmitted to Lyons, the correspondent at the latter place will receive in blue the exact fac-simile of the sender's handwriting. An order to pay a certain sum may thus be transmitted with perfect safety.—*Cors. Cin. Gazette.*

Telegraphy.

(From the San Jose Mercury.)

EDITOR MERCURY: I read with pleasure in one of your last numbers, the "Improved Morse Alphabet" as adopted in the East by the "Collins' Overland Telegraph."

I would beg a little corner in your columns for some remarks that, though uninteresting, perhaps, to some of your readers may yet be found not altogether useless by many who are connected with the science and practice of the Telegraph. Some improvement in the common Morse alphabet has long been a desideratum, and now that a movement of amelioration is beginning in the Atlantic States, our telegraph lines of the Pacific would do a good thing if they followed it. But is the newly-published alphabet the needed improvement?

It seems to be only partly so. It remedies the imper-

fection of the common Morse Alphabet, but it has too many unnecessary alterations, which do not all appear to be changes for the better. The imperfections of the common Morse Alphabet are, 1st, to use a blank space, not only as a means of separating letter from letter, but also as a component of letters; 2nd, to represent different letters by lines or dashes, whose only difference is their respective length. From which imperfections it follows that in practice, unless the operator be as nice and accurate with his key, as a teacher of penmanship is with his pen, it will frequently happen that the signs for C, R, and S, or I and O, or H, Y, Z, and &, or L, T, and 0, (*cipher*), will be mistaken for one another. I heard once of a lawsuit occasioned by a mistake of this kind, when a merchant telegraphed to another to send a large amount of goods by sail, and the telegraph reading, by rail, he had to incur heavy extra charges for railroad freight. The "Improved Morse Alphabet" does away with those twelve ambiguous signs, by using only dots and uniform lines as components of signs or letters, leaving the space to its natural office of separating letters and words. This is a decided improvement. But then going over the list of letters and numerals of this "Improved Alphabet," I find that nineteen signs of the common or old Morse alphabet have been changed, while only twelve, as I said, needed reform. This I think is superfluous, and, if we consider the trouble of changing long practiced forms, that have become habitual in the hand and ear of the operator, and are not inferior in ease or speed to the new ones proposed, it is rather objectionable; in fact, it obliges every operator to learn a new alphabet altogether.

Now, to reconcile the old and the new alphabets, I think the best way would be to adopt from the new what is really an improvement, and keep of the old what is not improved in the new. Here I propose the combination or union of both in the following

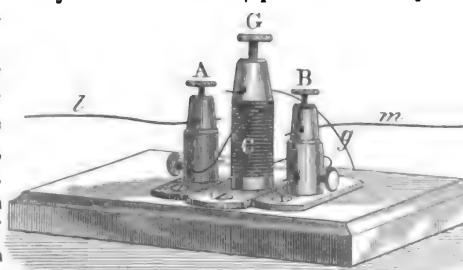
UNION MORSE ALPHABET:

A	--	H	---	O	---	V	---
B	- - -	I	--	P	- - -	W	- - -
C	- - -	J	- - -	Q	- - -	X	- - -
D	- - -	K	- - -	R	- - -	Y	- - -
E	-	L	- - -	S	- - -	Z	- - -
F	- - -	M	- - -	T	-	&	- - -
G	- - -	N	--	U	- - -		
1	- - - -	4	- - - -	7	- - - -	0	- - - -
2	- - - -	5	- - - -	8	- - - -		
3	- - - -	6	- - - -	9	- - - -		
?	- - - - -	:	- - - - -	:	- - - - -	¶	- - - - -

The principal advantages of this alphabet are the following: 1st, it has only dots and uniform lines or dashes, as components of signs, in the same manner as the "Improved Morse Alphabet"; 2d, it keeps as many as possible of the signs used in the common Morse Alphabet; 3d, for such signs as it has been necessary to change, it substitutes others similar in their movements or strokes, to the old ones which they supersede. So while, by the adoption of the "Improved Morse Alphabet" the operator has to learn a new alphabet, if this "Union Morse Alphabet" be adopted, very few letters will require any particular study or practice. A careful perusal of the two, in comparison with the common Morse Alphabet, will easily show which is the better "improvement." Why in the "improved alphabet" the signs of A and I should be interchanged does not appear; the one recurs fully as often as the other. In the "Union Alphabet" the letters which so often occur together BL, QU, WR, begin by a same stroke for both letters of each couplet; which tends to facilitate writing and reading.

The author of the "Improved Morse Alphabet" as criticized here, may have had reasons, which are not apparent, and I, in calling the attention of our telegraph lines to the proposed "Union Morse Alphabet," may be wrong in my conclusions; but then I would give thanks to any one that would prove it to be so, and undeceive me.

THEOPHILE.



PHILADELPHIA, April 1, 1865.

DEAR TELEGRAPHER:

I take the liberty to forward you the following lines, composed by David Strouse, one of the four operators who went with Col. I. A. Scott, at the commencement of the war. He (Mr. Strouse) was appointed Supt. of the U. S. Military Corps, and discharged his duties with entire satisfaction to all. But his labors were too much for his strength. He returned home and died of consumption shortly afterwards. A few days before his death, while seated on the bank of the Juniata river, near his home, he composed the following lines:

TO THE JUNIATA.

Gentle river, ever flowing
Where my early days were passed,
Like thy waters, I am going,
Sadly to the sea at last.

To that ocean, dark and dreary,
Whence no traveller comes again;
Where the spirit, worn and weary,
Finds repose from grief and pain.

O'er the world I long have wandered,
Now a stranger I return;
Hope and health and manhood squandered,
Life's last lesson here to learn.

Sadly on thy banks reposing,
I am waiting for the day;
Whose calm twilight softly closing,
Bears this trembling soul away.

CHARITY.

Wheatstone and Bain.

(Continued.)

The following are the letters made mention of in Mr. Wheatstone's last letter:

To the Editor of the Inventor's Advocate:

SIR: I see by recent publications in various periodicals, that Professor Wheatstone, of King's College, is stated to be the inventor of the application of electromagnetism as a moving power, to clocks. I beg, respectfully, to state that *Mr. Wheatstone is not the author of this invention*. I communicated it in confidence on the 1st day of August last, with the view of having his opinion on the subject, and also to see if he would join me in bringing it forward. Since then I have, with Mr. Barwise, of St. Martin's Lane, secured exclusive right to the invention by Her Majesty's Royal Letters Patent. By giving this a place in the *Inventor's Advocate*, you will greatly oblige,

Sir, your obedient servant,

ALEXANDER BAIN.

35 Wigmore Street, Cavendish Square,
March 24th, 1841.

The answer to this is as follows:

To the Editor of the Inventor's Advocate:

SIR: The statement of Alexander Bain, in your number of March 27th, does not invalidate the claim of Professor Wheatstone as the inventor of the electro-magnetic clock. Professor Wheatstone gave me instructions to make his electro-magnetic telegraph clock on January 6th, 1840, which was more than six months before Mr. Bain says he made his communication.

Your obedient servant,

JOHN LAMB.

Cook's Buildings, Old Kent Road,
April 7th, 1861.

From the Literary Gazette, 6th August, 1842.

SIR: In order to counteract the prejudicial tendency of Professor Wheatstone's letter in your *Gazette*, of the 18th of June, as well as to enable your readers to form a correct judgment upon the points at issue between the Professor and myself, I have to request a place for the following brief but faithful narrative. I first came to London in 1837, to seek employment as a journeyman clockmaker. I had at that time some knowledge of electricity, and a strong desire to know more. As soon as I obtained employment I devoted all my leisure to my favorite study, and attended lectures at the Adelaide Gallery and Polytechnic Institution, and seeing the beautiful electro-magnetic machines in action at those places, first drew

my attention to how they could be applied to useful purposes. The application of this mysterious power to the mechanism of my own business was naturally the first to suggest itself. Afterwards I thought on various ways of applying it to telegraph, and among other methods which occurred to me, was that of printing the intelligence instead of showing it by signs, which I knew had been done before. I therefore confined my exertions to the electric clocks and electric printing telegraph, and by July, 1840, I had so far matured both these inventions, that I was desirous of meeting with some party who would assist me with the means of bringing them into operation. Being a stranger in London, I called first upon Sir Peter Laurie, (as a countryman of mine), who kindly gave me a letter of introduction to the late Dr. Birkbeck; the Doctor was unfortunately confined to a sick bed, and I never saw him. I next called at the *Mechanics' Magazine*, office, in Fleet Street, and saw Mr. Baddeley, (a gentleman well known in the scientific world), to whom I explained my wants. Mr. Baddeley advised me to call upon Professor Wheatstone, whom he knew to be deeply engaged in the science of electro-magnetism, and thought him a likely person to enter into my views. At that time I knew nothing of Professor Wheatstone, but at Mr. Baddeley's recommendation, I waited upon him and described my plans, in which he seemed to take great interest. At a second interview I exhibited a model illustrative of my printing telegraph, and another of my electric clock. From the remarks then made by Professor Wheatstone, it was evident that both inventions were entirely new to him, nor did he in any way question their novelty or originality. It appeared subsequently, however, that as soon as he got possession of my plans, he went to another workman and got a machine made, which he exhibited at the Royal Society as his own invention, well knowing that he had obtained it from me; but of these proceedings I was kept in ignorance. The model illustrative of my printing telegraph which I exhibited to Professor Wheatstone at our second meeting, he purchased of me, but he said that he also had a printing machine which was to be added to his telegraph, and under this impression I sold him my printing model, and signed the receipt mentioned in his letter, the receipt being written by himself. At that time I had every confidence in the Professor, and implicitly believed his statements. Shortly afterwards I showed him another printing telegraph, different from the first, when he came to the following arrangement, viz.: That I was to make working models of my printing telegraph, (including the two arrangements), for which I was to be remunerated as the work progressed. The invention was to become his property on his paying me a stipulated sum of money. Accordingly I proceeded with the work until one of the models was finished, and the other partly so, when the Professor contrived to get both into his possession, and then refused to fulfil his part of the agreement. Shortly afterwards, I learned that Professor Wheatstone was applying for a new patent, the title of which would have enabled him to appropriate to himself my inventions. To prevent this, I immediately made fresh models, and publicly exhibited them at the Polytechnic Institution. Professor Wheatstone's assertion that "I was employed by him as a working mechanic," is wholly untrue; the only transactions which ever took place between us, related entirely to my own inventions, as I have already described, and I was never engaged or employed for a single hour upon any piece of mechanism or invention emanating from Prof. Wheatstone. The Professor asserts that there is no essential difference between some parts of his patent electric telegraph of 1840, and the electric clock; that it only requires the idea of telegraphing time instead of signals, forgetting that in the idea and its application consists the fundamental part of the electric clock. The very principle of the invention consists in applying the synchronism of the pendulum to regulate the transmission of the electric currents. Professor Wheatstone states that he directed his workman, in January, 1840, to make an electro-magnetic telegraph clock; but it was not made, nor anything done in the matter until after I had communicated my method to him, it was then gone on with so quickly that several were soon completed.

(To be Continued.)

Varied Uses of the Telegraph.

"HANS YORKER," the clever correspondent of the *New Orleans Bulletin*, in 1864, recommends to the editor to step into the telegraph confidential office, and look over the cross-readings which come out from the wheel, to be clipped off by subjects, from the long and narrow slip of electric paper. First, a dispatch to a newspaper, curiously succeeded by a domestic inquiry of a son or a daughter, which, in turn, is followed by a cabalistic announcement regarding cotton, and again gives place to some message concerning a hearse, and when a body is to be shipped, e. g. Marcy is Premier—cousin Joe is to be married to-morrow—how are stocks?—is the mare to be sold?—the body is packed in a Fiske case—Ike stands no chance with Pierce—I have arrived, dear love—great bargains to be made in cheese—renew the lease—don't forget the mackerel. Such would be some of the portions of messages that might catch the eye, as, to the measured click-click of both machinery and shears, the long line of paper was recled over and off into the distributing room where stand the Pages for delivery.

CORRESPONDENCE.

The following letter is a specimen of Commercial Telegraphic College literature. Comment is unnecessary as it speaks for itself plainly:

L——, Feb. 19, 1865.
Dear Sir

Enclosed you will find a request I am about to make to you, that is, will you please let me know if you will let me have an office to practice in for a few weeks in order to get some line business, i heard your line was the most accommodating line in the Union, you would do me a great favor by letting me soon, I can take care of a small office of not much business, I have learned the science of Telegraphing, only what I want is a little practice.

Yours Truly

ALBANY, April 18th, 1865.

To the Editor of The Telegrapher:

Obstinacy, Webster tells us, is "great firmness in holding out against persuasion, attack," &c., i. e. resistance.

I regret to say we, telegraph operators, are endowed—some of us—with too much of the aforesaid virtue; especially if any *Small office* has the hardihood to *break* us when sending.

To show you how foolishly silly a man can make himself, even in a "Telegraph Office," I submit the following which actually took place not a thousand miles from "Durrip."

The worthy gentleman who presides at the key in the village of ——, was "once upon a time" engaged in the laudable undertaking of "Clearing his Hooks," which, in his particular case simply means—all other offices keep still—or fight—when—chunk—open went the circuit, bringing our astonished hero to a dead halt. In a few seconds, contact was again perfect, and after the usual amount of *fouling*, on he went, only to meet the same result. Break and close followed each other until the insulted dignity of the artist found vent in—"You *five*—I'm sending now."

Thinking the reptile crushed, he attempted to proceed with his sending, but only to be again broken and *opened on*. "That straw broke the camel's back," and upset his balance entirely. He vowed he would "report that *Fool*, &c., to J. D. R. He wouldn't be insulted by any such upstart, and"—I don't know what he wouldn't do! but I do know he broke and fought circuit until the distant *Thunder Storm* gave up! Since which time he is "monarch of all he surveys," no one dares dispute his right to do whatever he pleases. There is, however, abundance of good humor in the man when you get at it, for when told whom he had been fighting circuit with and calling hard names, his wonderment was only exceeded by his immense *laugh*.

An ex-operator vouches for the truth of the assertion that this same operator broke with a cross until it either *gave out* or was removed!

Does J. J. F. "skognize" the picture?

All I intended at the outset was to point out one of the many little vexations to which, as a class, telegraphers are subject, and to counsel them not to let a petty, frivolous remark, or a breaking into circuit by a less informal brother operator, upset their good nature, or lead them to commit profanity.

Telegraphing is a nerve-exciting, dyspeptic business at best, and he who keeps coolest, and shows nothing but bon-hommie, lasts the longest, and *wins*, even against a *thunder-storm*.

BRISUS.

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All communications to, or articles for insertion in, *The Telegrapher*, must be addressed to the Editor, P. O. Box 3,393, New York.

No notice will be taken of anonymous communications: the name and address of the writer must always accompany each article or communication.

Correspondents sending articles for insertion must write briefly, and on but one page of each half sheet of paper.

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Patented June 21st, 1864.

This Machine is now for the first time offered to the Public. It has been thoroughly tested and found to answer its purpose most admirably.

As a Protector against Lightning, it has no equal, being so delicately constructed that not a click will be heard on the relay during the most violent thunder-storm.

While accomplishing this most desirable result, it in no way interferes with the working of the line. Telegraph Superintendents should at least give it a trial.

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AMERICAN ARTISAN.**

VOLUME I, NEW SERIES, 1865.

The AMERICAN ARTISAN, now commencing the second year of its publication, is a weekly journal devoted to fostering the interests of Artisans and Manufacturers, encouraging the genius of Inventors, and protecting the rights of Patentees. It is published every Wednesday at No. 212 Broadway, (corner of Fulton street), New York, by BROWN, COOMBS & CO., Solicitors of American and Foreign Patents.

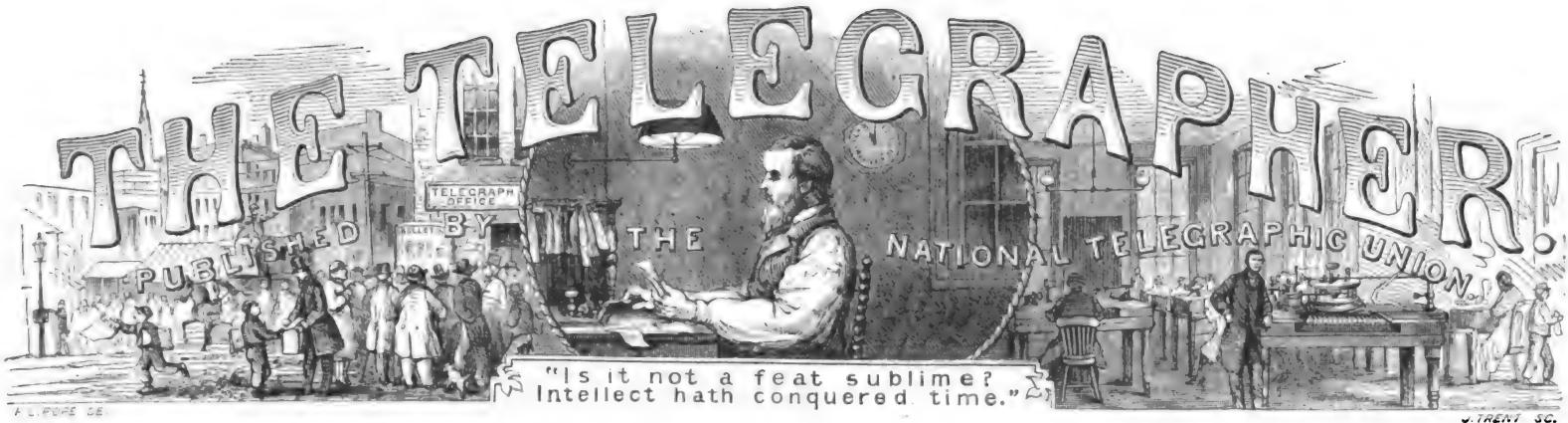
The Proprietors of the AMERICAN ARTISAN respectfully announce that on May 10, 1865, they issued the First number of the New Series of that journal; and it will be their aim to make it more instructive and interesting than any other periodical of similar character published in either the United States or Europe. The AMERICAN ARTISAN contains numerous Original Engravings and Descriptions of New Machinery, etc. both American and Foreign—Histories of Inventions and Discoveries—Interesting Letters from Workmen in all parts of the World—Instructions in various Arts and Trades—Reliable Receipts for use in the Field, the Workshop, and the Household—Hints to Millers and Millwrights—News-items for Manufacturers—Practical Rules for Mechanics and Advice to Farmers—Illustrated Details of Useful and Ingenious "Mechanical Movements," and other Lessons for Young Artisans—the Official List of "Claims" of all Patents issued weekly from the United States Patent Office—Reports of Law Cases relating to Patents; the whole forming an Encyclopedia of General Information on a variety of topics connected with the Industrial Arts, the Progress of Invention, &c.

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Vol. I.

New York, Monday, June 26, 1865.

No. 10.

THE INTER-CONTINENTAL TELEGRAPH.

BULKLEY'S TELEGRAPHIC EXPEDITION.

LATE last fall and early in the winter, three vessels, the barks Milton Badger, Carrie Bell, and Matthew Lucas, laden with supplies and all the materials necessary for the erection of an extended line of telegraph, sailed from this port for Victoria, on the Pacific coast. In mid-December, Col. Charles S. Bulkley, who had been Superintendent of the military telegraph in the Department of the Gulf, and who is now Engineer-in-Chief of the "Collin's Overland Telegraph Western Union Extension," sailed with his surgeon and staff of assistants for San Francisco. From thence he went to British Columbia and started exploring parties, and made such arrangements as were necessary, preliminary to the outset of the main expedition which started in March to carry a telegraph line along the Pacific coast, through the British and Russian-American Possessions to Behring Straits, to connect the United States telegraphically, with Russia and "the rest of mankind" on the eastern hemisphere.

The material part of the expedition was fitted out from this city so quietly as to attract but little attention. The wires, the insulators, the instruments and implements, everything but the bare poles necessary for the erection of the line, and all the supplies and clothing which the men will need in their long journey through thousands of miles of wild, and much of it unexplored, territory, have been sent, or will be forwarded from this city. The scheme to connect the old and new worlds by a vast overland route, is so gigantic, and involves so much more faith as well as fortitude than the first attempt to lay down a submarine line between England and America, that were it not for our war concerns and peace conferences, the Russian-American telegraph project would now be one of the all-absorbing subjects of public attention. As it is, the enterprise will probably proceed quietly, and we trust successfully, till, some three years from now, we shall wake up some fine morning and find the London, Paris, and St. Petersburg news of yesterday in our journals of to-day. Indeed, if all the telegraphic enterprises now projected and in operation, are then completed, we shall have intelligence but a few hours old from China, India, Japan, and "the uttermost parts of the sea," with our morning coffee every day.

The governments of Russia and of the United States are both largely and peculiarly interested in this new enterprise. Great Britain has granted a charter for the construction of the line through her American possessions, and last July the Federal Congress, in chartering the Company, directed the Secretary of the Navy to detail for the use of the surveys and soundings along that portion of the Pacific coast, both of America and Asia, where it is proposed to establish said telegraph, one steam or sailing vessel, in his discretion, to assist in surveys and soundings, laying down submerged cable, and in transporting materials connected therewith." Secretary Welles' "discretion" has already assigned the steam revenue-cutter, transferred from the Treasury to the Navy Department, which has been refitted and armed at San Francisco, to the service of the expedition. Another and larger steamer was also sent out from this side. With the vessels already employed, and those that will be engaged in the constant transportation of materials and supplies, the land and naval force of the expedition will number not less than two thousand men.

New Westminster, the Gulf of Georgia, British Columbia, is the immediate base of operations. Col. Bulkley will take up the line from British Columbia, and as he carries it along will be able to "report progress" daily. The first stretch will be from New Westminster to Fort Alexander, thence to Fort Frazer or Fort St. James, and thence to Fort Bahine, a distance, as the crow flies, of about four hundred miles. The country thus far has been explored and is settled "in spots" by fur-hunters and traders. Far beyond, on a nearly direct line to the Petty River, are forts and stations, here and there, belonging to or built for the Hudson's Bay Company; but the necessity for supplies and materials will keep the exploring party, and will establish the telegraph line nearer the coast, and the route proposed con-

templates an exploration of three thousand miles through wild and heretofore almost untrodden territory, from Lake Bahine, the centre of British Columbia, to the Yukon River, the extreme limit of the British possessions in America. So far as is possible or practicable, the adjunct fleet will follow the land expedition. At numerous bays and indentations on the coast, supplies and materials can be set down, and one of the vessels which left here carried out a small, light-draught steamer, forty feet in length, which can run up almost any of the rivers emptying into the Pacific. Many of those numerous rivers have yet to be explored; indeed the expedition ought to furnish us with a vast amount of information about a large but wholly unexplored region on this continent.

"Great expectations" enter largely in the estimates and prospects of the expedition. Thus, in the route from Bahine Lake to Yukon River, the Company "expect" to find the same character of country, between the coast range and the interior Rocky Mountains as that which obtains and extends between the Sierra Nevada and the coast range. If this expectation is realized, they may expect to find quartz indications of gold and silver; and if they do, it would be well to spread the news as speedily and widely as possible to attract the needy adventurers of the known gold regions, who are always ready to go "anywhere," and who might be induced, if they did not strike gold, to follow the expedition, exchange the pick for the axe, help to fell trees and to carry on the line. Plenty of help will be needed, and it is among the expectations of the Company that the stray fur-hunters and natives the explorers may meet, can be made useful in piloting the advance, or in watching or taking care of the line as far as it has been erected.

The few and far between settlements in the earlier portions of the route will of course, be made available stations by the Company, and, so far as is possible, the people employed by the Hudson's Bay Company, their hunters and traders, can make themselves very useful to the line without abandoning their present business. Portable houses are among the outfitting material of the expedition, so that, in regions destitute of timber, stations and quarters for the explorers can be set up. Imagination can picture the extensive mule caravan that will be needed to transport the insulators, wires, over some stretches, the bare poles, the provisions, the baggage, and all the necessary accompaniments of the expedition. In many places an abundance of game and fish will supply, to a great extent, the necessary food, but it will not do to depend upon the precarious supplies to be derived from an unexplored country.

The Yukon, which is known and called in part of the Russian Possessions, the Kinchpak River, is a very large stream, and opens five large mouths on Norton Sound, south of Behring Strait. It has been navigated from the sea to the interior three hundred miles, and when the explorers reach the river they will meet Russian traders and natives, as well as the vessels of their own expedition.

From Yukon River to Cape Prince of Wales, the nearest point to the Asiatic coast, the route is easy; and from this cape to Cape East, the distance across Behring Strait requiring a submerged cable, is only thirty-six miles.

But it is awfully cold up that way, and the year is made up, as an odd youth said of the Canadian calendar, of "nine months of winter and three months of very cold weather." Through a large part of the route in the British and Russian American possessions operations will be practicable only three or four months in the year; and in view of the severity of the climate in the more northern regions, towards Behring Strait, the very fine map of the expedition now lying before us suggests other points for crossing from one continent to the other. Thus, from the coast across Cook's Strait to Nounivak Island, twelve miles, thence to St. Matthew Island, midway in Behring Sea, one hundred and seventy miles, and from there to Cape Navarin, on the Asiatic coast, the distance is only two hundred and fifty miles—all short and practicable for submerging cables. Or from Cape Romanzoff to St. Lawrence Island it is one hundred and ten miles, and from the main northern channel of the Kinchpak, or Yukon River, to the same point, it is one hundred and thirty-five miles; the island is eighty miles long, and from the island to the Asiatic

coast it is forty miles to Cape Choukotski, or two hundred and fifty-three miles to Cape St. Thadeus, south of the Gulf of Anadyr, and far enough south of Behring Strait to make it, perhaps, the most feasible point for carrying across the submarine cable.

On the Asiatic continent the point to be reached is the mouth of the Amoor river. The Route may extend by land the entire distance, or only to Penjinsk Gulf, and by cable across the Okhotak sea. To reach the mouth of the Amoor river will require a period of at least three years, and by that time the Russians will have completed the connecting line from this point to Irkoutsk, which is already connected by telegraph with St. Petersburgh. Then, with or without the Atlantic telegraph line, the Puck prophecy of putting a girdle round the earth will be fully realized. The western extension line comprehends a scheme to run a branch line to Nagasaki, in Japan. India is, by telegraph, at the very door of England. Within the past three years Russia has completed a line of nearly three thousand five hundred miles to the frontiers of China. The present scheme of Russian-American connection may be impracticable, but it is by no means impossible, or it would not have met with the encouragement which has authorized the enterprize. We shall soon see the line when we can touch with telegraphic fingers almost every point of importance on the globe.—*Eve. Post.*

THE NORTH ATLANTIC TELEGRAPH.

It has been mentioned several times in the columns of *The Telegrapher* that single wires connecting important distant places soon prove inadequate to the demand upon their capacity to transact the rapidly increasing business which is surely to be offered. Aside from the doubts of its practicability, the Atlantic Cable, if it works at all, will almost immediately prove itself unequal to the demand for its valuable services. It must necessarily work slowly, limiting its daily work to an insignificant number of messages in comparison with the land lines in this country.

Many of our readers have perhaps forgotten the project for European communication via Labrador, Greenland, Iceland and Scotland, and very few have ever seen an account of the explorations. As the "World telegraphs" are now the most absorbing subjects among telegraphers, and it is plainly to be seen that after telegraphic communication is once established with the great cities of the old world, more wires must be strung, more cables submerged, or else other routes be opened. The latter course will be the more probable one, as anti-monopoly is now the rage. To gratify our readers and to better circulate to the world the fruit of land and sea explorations for telegraphic purposes we print the following extracts from a report of the "Proceedings of the Royal Geographical Society of Great Britain, Jan'y 28th and Feb'y 11th, 1861," published in London, for general and gratuitous circulation.

"The idea of laying down a telegraph line between Europe and America, by what is now familiarly known as the North Atlantic route, was advanced many years ago both in England and America. In the year 1854 Colonel Shaffner, of the United States, took steps towards the actual realization of the project. Owing, however, to the Russian war distracting public attention at the time, and subsequently to the engrossing claims of the attempt to carry a deep-sea cable direct from Ireland to Newfoundland, it was not until within the last twelvemonths that the British nation became acquainted with the proposed north-about route, as offering the most practicable mode of effecting Transatlantic telegraphic communication.

"The success which attended the laying of the cable between Dover and Calais in 1851, gave an impetus to submarine telegraphy. Cables were laid from time to time over various rivers and arms of the seas; and as no instance of failure occurred, the possibility of crossing the Atlantic itself came to be regarded as a feasible project. There had been no manifestations in electrical phenomena to cause any doubt as to the successful transmission of the galvanic current through a cable of the length required to connect the two continents, a distance of 2,100 miles, until the latter part of the year 1853, when it was made known by that distinguished philosopher, Professor Faraday, that the electric force is arrested in its transit through very long cables. Subsequent experiments demonstrated that this retardation is cumulative, increasing in a certain ratio in proportion to the distance traversed; that is to say, while it takes one-third of a second to transmit a current through a cable 500 miles in length, it will take about a second to transmit it 1,000 miles. The discovery of this fact was considered by many electricians both in England and America to be a fatal obstacle to the commercial success of working a cable from Europe to America direct.

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"A short time after Professor Faraday's lecture Colonel Shaffner started the project of a telegraphic communication between the two continents by a series of short stages, in preference to a continuous line carried right across the ocean. His original idea was to connect Europe generally with America, and he accordingly proposed to carry his line from Labrador to Greenland, from Greenland to Iceland and the Feroe Islands, and from the Feroe Islands to Norway, and thence to Copenhagen. He visited Europe for the purpose of securing the necessary concessions and in August, 1854 obtained one from the King of Denmark, and others from the

Governments of Sweden and Norway in the following year. Thus, at the time when the question of a connection by telegraph with America had been but scarcely entertained in this country, a route had already been laid down making available natural stepping-stones which Providence had placed across the ocean in the North, and thus evading many of the difficulties and risks which it was predicted would be encountered in the direct sea route.

"Subsequently, when the difficulties connected with that route came to be demonstrated by actual trial, with a view to meet the urgent wants of the British mercantile community, it was resolved upon diverting the European end of the cable from Norway to Scotland, which was cheerfully acceded to by the Government of Denmark. In 1859 Colonel Shaffner took another important step in the execution of his project, which was to explore personally the intended route by Greenland and Iceland. He conceived he had good grounds for believing that the ice of Labrador and Greenland would not imperil the safety of a cable laid on the bed of the sea, provided the shore-end could be properly secured, and that there was nothing in the electrical conditions of the Northern regions to interfere with the working of the telegraph. He, accordingly, chartered a small sailing vessel, and embarking with his family on board, put forth from Boston on the 29th of August, 1859, for the purpose of making this preliminary survey. He landed at Glasgow in November of that year, and presented to the public the results of his voyage, at a meeting over which presided the Dean of Guild, Mr. Buchanan. The observations made and facts collected on that voyage gave the public reason to hope that telegraphic communication could be established by way of the proposed route, and so satisfied were his friends in London with the advantages held out, that funds necessary to secure the undertaking were promptly found.

"During the voyage above referred to, Colonel Shaffner sounded the deep seas to be traversed by the telegraph between Labrador and Greenland, and between Greenland and Iceland. These and other observations have been most singularly corroborated by the more recent Government survey by Sir Leopold M'Clintock, and by that of Mr. Allen Young, commander of the 'Fox' Expedition.

"In the course of the spring of 1860, Colonel Shaffner read a paper on the proposed North Atlantic Telegraph to the members of the Royal Geographical Society, and every assistance was rendered, under the able direction of the President, Earl de Grey, Sir Roderick Murchison, and the Secretary, Dr. Norton Shaw. On the 15th of May, Lord Palmerston granted an audience to an influential deputation to solicit the assistance of Government in sending out ships and officers to make the necessary official survey for ascertaining the practicability of the proposed route. The Premier appeared fully to appreciate the advantages of the north-about scheme, and in a very short time the Admiralty were directed to send out an expedition for the purpose of making the required survey.

"The Admiralty selected for this duty Captain Sir Francis Leopold M'Clintock, an officer of great experience in the navigation of the Arctic Seas, and her Majesty's steamer 'Bulldog' was placed under his command. This distinguished officer was directed to take the deep-sea soundings, and he sailed from Portsmouth on his mission in June, 1860. In the meantime, the promoters of the enterprise purchased the 'Fox,' the yacht formerly employed in the successful search for the remains of the Franklin expedition, and fitted her out for the purpose of making the surveys of the landing places of the respective cables. The 'Fox' was placed under the command of Captain Allen Young, of the mercantile marine, an officer well known for his distinguished labors under M'Clintock in the Franklin search. At the same time, Dr. Rae, an intrepid Arctic explorer, volunteered his services to join the 'Fox,' and take charge of the overland expeditions in the Færoe Isles, Iceland, and Greenland. Whilst Colonel Shaffner, as Concessioner and Telegrapher, and two delegates on the part of the Danish Government, Lieutenant Von Zeilau and Arnliot Olafsson, a member of the Icelandic Diet, accompanied the 'Fox' Expedition, to take part in the necessary surveys.

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"The 'Bulldog' returned to England in November, and the 'Fox' arrived, towards the latter part of the same month. Both expeditions, notwithstanding an unusually tempestuous season, were successfully carried out, and on the evening of Monday, the 28th January, in the present year, the results of their labours, as well as those of Dr. Rae and Colonel Shaffner, with a report upon the Greenland Fiords, by Mr. J. W. Tayler, a resident on that coast for seven years, were presented to the members of the Royal Geographical Society.

"At the subsequent meeting, February 11th, a discussion upon the papers took place, on which occasion the promoters and others engaged in this great undertaking were enthusiastically congratulated upon their most triumphant success, in proving the practicability of the proposed telegraphic route, *via* the Færoe Isles, Iceland and Greenland.

"Before closing these remarks it is but justice to notice the assistance given to the enterprise by Mr. Joseph Rodney Croskey, the eminent American merchant, of London. This gentleman not only advanced the £11,000 caution money paid to the Danish Government, but he also made the requisite advances for the purchase of the 'Fox,' and fitting her out for the late Expedition."

A crowded meeting of the members and their friends of the Royal Geographical Society assembled at the Burlington House on Monday, January 28th, 1861, when Sir Leopold M'Clintock read the following paper:

"In compliance with a request from the promoters of the North Atlantic Telegraph Route, her Majesty's Government dispatched the "Bulldog" under my command, on the 1st of July last, with orders to ascertain the depth of the ocean, and as far as possible the nature of the bottom, between the Færöe Islands and Iceland, Iceland and Greenland, and between Greenland and Hamilton Inlet, on the Labrador coast. I was also directed, should my time permit, to make a slight examination of that inlet—being British territory;—but in no other instance did my duty extend to the examination of any of the coasts I was required to approach.

* * * * *

"Leaving the Færöe Isles on the 8th of July, we sounded across towards Ingolfsholde upon the S. E. shore of Iceland, a distance of 280 miles, and found the depth to be generally less than 300 fathoms, the greatest depth being 680 fathoms. The specimens of the bottom consisted, chiefly, of fine sand, or mud and broken shells, and in two instances, of minute volcanic debris; the temperature of the sea at 100 fathoms below the surface scarcely varied from 46°.

"The depth of water upon this section of the telegraph route is so moderate that it would be an easy matter to lay down a cable between Færöe and Iceland.

* * * * *

"On the 11th of July I arrived at Reikiavik, the chief town of Iceland; an expected supply of coals had not arrived, therefore I remained only three days, but returned again in October, when my stay extended from the 19th to the 28th. During these visits I obtained some interesting information about its physical aspect, its climatic condition, and the movements of the ice in the adjacent seas. I was informed that a telegraphic wire could not be carried along the south shore eastward of Portland, on account of the many wide rivers which have their sources amidst the mountains and glaciers of the interior. These rivers are much swollen in spring, when they carry down vast quantities of ice, and sometimes change their beds; but to the north of the central mountains no such difficulty would be experienced.

"The east and west coasts are very seldom visited by drift-ice, not oftener than, seven or eight times in each century, whilst it is only upon two or three of these occasions that the drift of Arctic ice is sufficiently extensive to reach the south coast. True icebergs are never seen; the masses sometimes mistaken for them are small enough to float in comparatively shallow water, so that a cable would remain undisturbed at the bottom, its shore-end being carried into a fiord. Faxe Bay, on the south-west coast, enjoys a remarkable exemption from drift-ice: the last mention of its appearance within it is as long ago as 1683; neither does it freeze over—merchant vessels trade there throughout the winter. A cable could therefore be landed in this bay with perfect ease and security, and probably to the westward of Reikiavik.

"The entire population of Iceland scarcely exceeds 60,000 souls. Education is perhaps more generally diffused than in any other country.

"Although Iceland is considerably larger than Ireland, and is of volcanic origin throughout, yet for long ages the disturbance occasioned by its subterranean fires has been limited almost exclusively to its south-western quarter, where Hecla is occasionally, and Katla has been very recently, in an active state, and where Geysers and boiling springs are numerous; nor is the adjacent sea free from like convulsions.

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"Fortunately the telegraph route is not required to pass, by sea or land, through any part of this disturbed or suspected area.

"Five days of very calm weather enabled us to complete the line of soundings between Faxe Bay and the south-east coast of Greenland.

"The depths generally were very regular, the greatest being 1,572 fathoms, and situated in mid-channel; but when within forty miles of Greenland the depth decreased from 806 fathoms to 228 fathoms, in the short distance of 3½ geographical miles.

"The nature of the bottom was chiefly oaze, that is fine mud partly consisting of minute organic remains, but near to Iceland, volcanic mud and sand was more frequently brought up.

"The temperature of the sea at 100 fathoms below the surface gradually diminished from 46° near Iceland, to 89° off the Greenland coast.

"Circumstances which it is unnecessary to allude to here prevented me from commencing, before 18th August, the line of soundings between the S. W. coast of Greenland, and Hamilton Inlet on the Labrador coast—a distance of 550 miles.

"The Greenland shore was still blockaded by such a vast accumulation of drift-ice that we could not approach within 45 miles of it, at which distance the depth was ascertained to be 1,175 fathoms; this line of soundings to Hamilton Inlet shows that the greatest depth, which is in mid-channel, is 2,032 fathoms; and that the decrease is very gradual until within about 80 miles of Labrador, where there is a change from about 900 fathoms to 150 fathoms in 7 or 8 miles.

"The ocean-bed consisted of oaze, but with fewer microscopie organisms than previously met with, whilst the average temperature of the sea at 100 fathoms below the surface was 40°.

"Seven days were all I could devote to the examination of Hamilton Inlet. Its length was found to be 120 miles, whilst its width varies from about 15 miles at its mouth, to scarcely half a mile at "the Narrows," which are about half way up to its head, and above which it expands into an inland sea of about 20 miles in width. All this great inlet was rapidly explored, its main channel from "the Narrows" to seaward was sounded, and the whole laid down with sufficient accuracy for ordinary purposes; but these soundings are not nearly sufficient to meet the requirements of a cable-route, nor even to decide whether a cable should be landed there.

"We found the depths to be very irregular, and seldom sufficient to secure a submerged cable from disturbance by icebergs. A perfect survey is absolutely necessary, and may show that the shallow water and reefs of rocks which, to our imperfect knowledge, appeared intricate and unfavorable, may not only be avoided, but may afford a sure protection against the intrusion of icebergs within the mouth of the inlet.

"There are some small rocky islets off the mouth of this inlet, and of these the Hern Islets lie nearly in the middle, and contract the widest channel of entrance to about 5 miles; the greatest depth obtained in this channel was 49 fathoms. Had the depth of water amounted to 70 fathoms in as far as this position, I would not hesitate in pronouncing favorably of Hamilton Inlet as a terminus to the cable from Greenland.

"The greater part of the local information which I obtained here was kindly furnished by Captain Norman, a Newfoundland Merchant, who has traded here each successive summer for 24 years; during the summer he resides in Indian Harbor, at the north entrance of the inlet, where there is a secure anchorage for vessels of moderate size. Captain Norman states that icebergs very rarely enter the mouth of Hamilton Inlet, and never pass within the Hern Islets; and for these reasons, 1st, that the current which has borne them from the North is here deflected offshore by the Exquimaux Islands, and carries them past the mouth of the Inlet; and 2ndly, that the flow of water caused by the discharge of several large rivers into the inlet, still further aids in carrying the drift ice and icebergs out to seaward.

"During winter and spring this drifting ice prevents all access to Labrador, but by June, Hamilton Inlet is usually quite free from it.

"From Captain Norman I also learnt that the deepest water along the coast is off Cape Harrison, and that a large river runs into Byron Bay adjoining it; more over, Sloop Harbour (which is close to the river) is said to be an excellent one. Unfortunately my time was too limited to admit of any examination of this promising locality. It is very desirable to obtain more information respecting the ice and icebergs upon this coast."

* * * * *

"The shores of Hamilton Inlet appear bold, rocky, and almost devoid of vegetation when viewed from the sea; as we advance up it, the land becomes lower, the undulations more gentle, verdure and trees appear, and at its head the whole country is densely covered with spruce, white pine, and white birch, but the tallest trees do not exceed forty feet.

I was informed that the interior is similarly wooded, and has an exceedingly scanty population of Indians, allied to the Cree nation; they all profess Christianity and are a strictly honest, quiet race.

"The residents along the shores of this great inlet are of European or mixed blood, and do not amount to 200 souls.

* * * * *

"At the Hudson Bay trading post up North-west River, at the head of the inlet, I met Mr. Smith, the gentleman in charge, who kindly supplied me with the only information respecting the interior that I was able to obtain. He seemed to think there would be no difficulty in carrying a wire from here overland to Mingan, on the Gulf of St. Lawrence. The Indians frequently travel from one place to the other, the distance not exceeding 250 miles. Should the cable be taken to this inlet, I would suggest that it be landed upon the south shore, to seaward of "the Narrows," as the tides run through them with very great velocity. All other parts of the inlet freeze over to a depth of three feet, for the winters are very severe. The summers, though short, are no less remarkable for their warmth. At North-west River barley and oats ripen, and potatoes and other vegetables grow tolerably well. Mosquitoes are such an intolerable plague, especially to new comers, that unless their faces are carefully veiled or smeared with camphorated oil, brimstone ointment, or dilute creosote, they cannot either repel or endure their bloodthirsty attacks.

(To be Continued.)

The Russian-American Telegraph—Incidents of the late Trip of the Shubrick.

The steamer Shubrick arrived in this port on Tuesday, April 18, on her return from a trip to British Columbia and the Russian Possessions, whither she had been on business connected with the construction of the great international line for opening telegraphic communication between Russia and America. As the public are interested in the grand object of the enterprise and the developments which may be made through the explorations in connection therewith, some few items in regard to the Shubrick's late trip may not be amiss. The Shubrick left San

THE TELEGRAPHER.

Francisco on the 7th of March last, and after experiencing an unusual stormy passage, arrived at Victoria on the 13th, where she exchanged salutes with H. B. M.'s ship *Chamaleon*. The Shubrick's party consisted of Col. Charles S. Bulkley, Dr. Henry P. Fisher and others of the Collin's Overland Telegraph Company, and M. Peletz, Secretary of the Governor of the Russian Possessions. At Victoria an interview was had with Governor Kennedy and the officials of Vancouver Island, the principal Hudson Bay Company's agents and other influential citizens, all of whom manifested great interest in the proposed work, and offered to render every assistance possible towards furthering the enterprise. Among other generous offers, the Government tendered the expedition the use of the toll roads in British Columbia for the transportation of men, material, and supplies, free of charge, with other advantages which will prove of great service and convenience to the expedition. From Victoria they proceeded to New Westminster, in British Columbia, where an interview was also had with Governor Seymour and other officials. The Shubrick then proceeded to Nanaimo, where she took in coal, and then started for the more northern regions.

The route of the steamer was one seldom travelled, except occasionally by the vessels of the Hudson Bay Company when on their trading expeditions, the route being through Queen Charlotte's Sound, and following the network of channels along the coast for the entire distance to Sitka. The formation of the country through most of these passages is very remarkable. The mountains on either side of the channel rise almost perpendicularly, and through these channels, which in many places are not over three hundred yards in width, the water rushed at the rate of twelve knots an hour, while at short intervals all along the coast are deep indentations or rivers, some of them two hundred miles in length, in which it is impossible to find anchorage on account of the great depth of water. The first stopping place after leaving Nanaimo, was at Fort Simpson, on Observatory Inlet, near the mouth of Simpson's River, where the Hudson Bay Company have a trading post. From thence they proceeded up through Clarence Straits to the Steekin village, passing the Duke of York Island and other noticeable land marks. This island appears to be composed of three lofty mountains, blended together at the base, and rearing their trinity of snow clad peaks upwards for thousands of feet until nearly lost to view in the clouds. The passage through Johnson Straits was fearful, the tide running with frightful velocity. So near is the meeting of the waters at this passage, that the tide does not rise or fall over two feet. The channel appears to be a narrow gorge from a quarter to half a mile in width, while on each side the mountains rise from the sea almost perpendicularly.

Vancouver's passage through these channels in 1793, must have been a perilous undertaking, especially in view of the fact that his explorations were made in sailing vessels, and these the old lumbering, almost unmanageable droghers of that age. Yet Vancouver's explorations of these channels were exceedingly minute, and his charts are the most accurate of any in existence, notwithstanding the more recent explorations made with the benefit of modern improvements. Throughout this extent of coast no sign of either savage life or civilization is apparent. In fact, so steep and smooth are the snow-clad mountains, that a woodpecker might find it difficult to "hold his grip." Through the Grenville Channel, still further North, the snow on the mountains extends down to the water's edge, and on the shores ice had formed, but in no large quantities.

From the time the Shubrick left Queen Charlotte's Inlet until her arrival at Sitka, she experienced a succession of gales and snow-storms, but on the 24th of March the fury of the elements seemed to have united for a grand dash. The winds blew a perfect tornado, and the snow fell in such quantities that at times it was impossible to see the length of the little steamer. During the day the snow fell in occasional squalls in such quantities as to cover the steamer's decks to the depth of seventeen inches. But in connection with this storm, the peculiarities of the climate of the North Pacific were particularly manifest. During this day the thermometer varied from 40 to 56 degrees in the shade, and at intervals the mercury ran up as high as 80 degrees in the sun, and this at a latitude of 55 degrees north, similar to that of Labrador, in the Atlantic, and farther north than Newfoundland. Think of that, ye denizens of the Atlantic cities, whose only idea of the British and Russian possessions is associated with frigidity and furs! At Fort Simpson the inhabitants were complaining of the cold weather, and unanimously agreed that it was the coldest and severest winter ever known there. "Why, only think of it," said they, "the thermometer has been down to zero!" The residents of those portions of the Northern States, where the thermometer every winter goes twenty degrees below zero, must pity these unfortunate people.

It is gratifying to know that these people, so far removed from scenes of civilization, have many of the excitements and pleasures of civilized life, and although in a cold climate, it seems that nature in her bounty has provided them the means of relief from her many disadvantages. When the Shubrick arrived at Fort Simpson the oil fever was at its height. Seven hundred canoes, containing over 3,000 Indians, had left on the day previous for the oil regions, and the excitement was on the increase. It seems that a species of fish abound in that locality, called the *sak* or *Clican*. They are about the size of a smelt, and have much the same

appearance. They are considered quite a delicacy by the epicureans of the North, but are prized more particularly on account of the oil they contain, which is extracted from them and shipped to England, where it is used as a substitute for cod liver oil, or perhaps sold for the genuine article.

The most remarkable peculiarity of these fish is this: When they are dried they can be lighted or set on fire, and will burn like a candle, producing a clear and beautiful light, equal to kerosene. The idea of lighting up one's house with fishes, their heads sticking into an appropriately constructed candlestick, with their tails blazing in the air, is a novelty left for the people of the present age to carry into execution. These fish are remarkably plentiful in the Steekin river, and should they be introduced into this market in large quantities, it might necessitate a change in the rendering of Dr. Watts' hymn, as follows:

"While the *fish* holds out to burn
The vilest sinner may return."

Then again, they might be substituted for cod liver oil (as their oil really is in England), and eaten medicinally. Indians might carry a few dried fish in their pockets, and when they noticed by the watch borrowed for the purpose, that it was time to take their medicine, might draw forth a fish and take it as one would a stick of cough candy. The Indians in this section seem to be more enlightened than in any other part of the coast. Many of them have sashes and glass in their rude huts, and no inconsiderable number of them speak English fluently. They have a curious mode of showing their respect and esteem for their rulers or Nyhees, by erecting huge piles, some of them of enormous height, hewn from the tallest trees their forests supply, and elaborately and fancifully carving grotesque images thereon from top to bottom. Some of these spars are from 80 to 100 feet in length, and the ornamental work must have cost the Indians or donors of the offerings months of patient labor.

The Shubrick arrived at Sitka on the 1st of April, and was received with salutes of 21 guns each, from the fort and Russian war ship lying in the stream. By the Russian system of reckoning, our Saturday was their Sunday, which they were appropriately celebrating when the Shubrick arrived. Here the party went on shore and called upon Prince Maxsutoff, which visit was returned on the following day, by the prince, accompanied by the princess. Both of them speak English fluently, are very intelligent, and highly cultivated persons, and they expressed great interest in the work of uniting the two countries by telegraphic communication. The prince supplied the Shubrick with coal, and after having taken it on board, the steamer bid them a kind adieu, the usual complimentary salutes being fired on her departure. Dr. Henry P. Fisher and party were left at Sitka to collect information from traders, Indians, and others, concerning the country over which they would soon be compelled to pass. The storm which had been raging for several days had now pretty much subsided, and the little steamer came down the coast like a bird, starting off as though aware she was homeward bound. On the way back they called again at Steekin village for some wood for which they had contracted with the Indians, on their upward trip; but the noble red men of the forest seeing their necessity, raised the price and annulled their former contract. The party would not submit to extortion, so instead of being swindled they ran the steamer into Safety Cove, in Grenville channel, where all hands turned to and soon procured sufficient for their purpose. On the downward trip the steamer undertook to pass through Johnson's Straits against the rapids above mentioned. The little craft came up manfully to the breach, but only to be swept back by the powerful current. Again and again did the Shubrick charge on the rapids, their innumerable white caps foaming and flashing like the glittering of bristling bayonets, and finally, finding her efforts fruitless, gave it up like a sensible craft. Upon the steamer arriving at New Westminster, the party dined with Governor Seymour, and the Colonial Council, where everything passed off pleasantly, with renewed assurances of mutual interest in the great work before them. The Shubrick then proceeded to Seattle, on Puget Sound, and thence came to this port, where she arrived in just six weeks from the date of her departure. When the Shubrick left Seattle, a leak existed in the telegraph line somewhere between that point and New Westminster. Superintendent Gamble, with a party, had been endeavoring to discover the source of the trouble, and had reduced his investigations to a space of 25 miles. The line is now working to New Westminster, and the difficulty is therefore obviated. Immediately upon the line working satisfactorily to New Westminster, Governor Seymour sent congratulatory messages to the Home Government on the success of the enterprise.

It is not improbable that similar messages may be sent the entire distance by telegraph, during the coming year. Mr. Gamble is still superintending telegraphic matters on the Sound, and will not be back until some time during next month. The starting of the grand expedition is a question depending entirely upon circumstances. The ships freighted with the Company's supplies are now due at Victoria, but have not yet arrived. Immediately on their arrival the party will leave here and connect with them. In the meantime the corps are busily engaged in arranging maps and charts, and compiling information from every accessible source, concerning the field of their intended future operations.—*San Francisco Bulletin*.

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DISTRICT PROCEEDINGS.

ST. JOSEPH DISTRICT.

The fifth regular meeting of this District was called to order at 3, P. M., the 2d April. No quorum being present, meeting adjourned.

The sixth regular meeting of this District was called to order 3 P. M., 7th ult. No quorum being present, meeting adjourned until Wednesday evening, May 10th.

Pursuant to adjournment, a meeting of this District was held by telegraph, evening of the 10th, inst. District Director in the chair. Roll called—eight members present.

The Chair announced the departure of H. Stull from Ft. Leavenworth.

A gentle hint from the District Treasurer to those in arrears, was offered, when on motion, meeting adjourned

S. P. PEABODY, *Dist. Director.*

E. B. McDILL, *Dist. Secy.*

PHILADELPHIA DISTRICT.

The regular monthly meeting of this District was called to order at 3.10, P. M., 4th inst. Fifteen members were present. The minutes of the preceding meeting were read and approved.

The election of new members being in order, the meeting decided to vote for the same by ballot. Messrs. J. T. Shain, J. Sisson Clarke, and Reese Welsh were proposed and duly elected.

The committee on club-room reported progress. Mr. Buckwell gave notice that at the next meeting he would introduce a motion to remove the fine of fifty cents for non-attendance of meetings, and increase the District dues to fifty cents per month.

He also remarked that the near approach of the next Convention, called for a full and free expression of views touching upon the more complete state of our organization. He stated that some radical changes were contemplated, and it was proper that the delegates should have ample time to bestow upon the subject that mature deliberation which it requires.

Mr. Blackman was requested to take the Chair, and District Director Black, proceeded to advocate an entire change in the national organization, in its relation to the Districts. He thought a "per capita" tax should be levied upon each member for the sustenance of a national fund, after which all monies collected should be under the control and keeping of the separate Districts, and also that each District should attend to its own "relief affairs" in cases of sickness, &c.

Mr. J. Patrick considered the present system as preferable, and said that if the funds were thus distributed, the Districts would frequently find themselves unable to meet the demands of sick members. He did not take this ground because he was Treasurer of the Union, but simply because he considered the plan suggested by Mr. Black as altogether impracticable.

Mr. Woodruff maintained that our present plan of organization was contrary to that of all other associations having similar objects in view. He strongly advocated the creation of a sinking fund for the support of the national institution, and that a wider range of legislative power be granted to the several Districts. With such an association as ours, embracing within its limits operators in every State of the Union, there were many conflicting interests which should be managed by the Districts according to their peculiar circumstances.

Mr. Buckwell favored the plans proposed by Messrs. Black and Woodruff, and added that two years' experience had revealed the fact that we are accumulating a much larger national fund than is necessary to defray the ordinary expenses. There was no avowed object, so far, in establishing such a capital. He thought it was calculated to excite suspicion—no matter how unjust—as to the real policy of our institution. He advocated conferring honorary degrees upon such members as were desirous of particular distinction, believing it would tend to increase the interest and ambition which we should all take in our institution.

The debate was earnest and interesting, although it was not decided what action shall be taken. The question was introduced merely for discussion, in view of the coming Convention, and the members of this District would be pleased to ascertain the opinions of other Districts upon the subject.

R. J. BLACK, *Dist. Director.*

G. W. PORTER, *Dist. Secy.*

DETROIT DISTRICT.

The regular monthly meeting of this District was held on the 4th inst., at 4 P. M., 9 members present. District Director in the Chair. Minutes of last meeting read and approved. A. R. Walsh, and D. R. Taylor, of Detroit, were unanimously elected members. Mr. Priest offered a preamble and resolution, to be signed by every member of this District, denying certain statements made in a commercial college advertisement published in the papers of this city. Adopted.

On motion of Mr. Irvine, Messrs. Priest, C. Fox and A. Fox, were appointed a committee to carry out the foregoing preamble and resolution. Mr. Irvine offered a resolution which was adopted, changing the time of holding monthly meeting from the first Sunday to the first Wednesday in each month.

The District By-Laws, after amendments, were adopted.

The Director gave notice that nominations for a Delegate to attend the annual Convention would be made on first Wednesday in July.

There being no further business before the meeting, on motion, adjourned.

A special meeting of this District was held at 8, P. M., 10th inst. Meeting organized, District Director in Chair; 10 members present.

District Director made some suggestions, whereupon Mr. Cowlam offered a resolution empowering the District Director to draw from the District funds to carry on the controversy with the Commercial Telegraphic College of this city. Mr. Priest moved an amendment, substituting a committee of three instead of the District Director. Amendment accepted and resolution adopted. Messrs. Priest, C. Fox, and Walsh were appointed such committee.

Mr. Cowlam moved that an assessment of one dollar per member be made for the above purpose. Adopted. Adjourned.

T. W. PRIEST, *Dist. Director.*

C. CORBETT, *Dist. Secy.*

ST. LOUIS DISTRICT.

Meeting called to order at 3 P. M., March 5. In consequence of the absence of the District Director, Mr. McKenzie was called on to preside. There being no quorum, meeting adjourned to Sunday, 12th inst.

Adjourned meeting called to order at 2 P. M., District Director Presiding. In absence of District Secretary, Mr. Pickering was appointed *pro tem.*

Roll called, eleven members present. The minutes of the last meeting read and approved.

The names of C. Bruce Dickerson, and J. Beemer, were proposed for membership and elected.

On motion of Mr. Hammond, That a District Treasurer be elected for this District, Messrs. M. D. Crain and H. E. Losey were nominated. The former gentleman receiving the largest number of votes, was declared elected.

The District By-Laws were read, and on motion of Mr. Losey a committee of three was appointed to revise the same. Messrs. Hammond, Pickering, and Losey, committee.

The following resolutions were then proposed:

It was moved that the thanks of this District be extended to Mr. Crain for the minute books so kindly presented for the use of the District. Adopted.

The meeting then adjourned.

Sunday, April 2d. There being no quorum, meeting adjourned to Sunday, April 9th.

Sunday, April 9th. Adjourned meeting met at 2, P.M., District Director presiding. Minutes of last meeting read and approved.

The members of this District having ascertained that Mr. J. J. Kinnaman, our former District Secretary, was permanently located in Boston, his seat was declared vacated, and on motion of Mr. Hammond, the meeting then went into an election to fill the vacancy, resulting in the unanimous election of Mr. C. C. Robinson.

Mr. Crain moved that the regular monthly meetings of this District be held on first Wednesday evening of each month, at 8, P. M. Carried. Meeting then adjourned.

E. PICKERING, *Secy. pro tem.*

May 3d, 1865. There being no quorum, meeting adjourned to Wednesday, June 7th.

June 7th, 1865. Meeting called to order at 8, P. M., District Director Presiding.

Minutes of last meeting read and approved. The following named persons were then proposed for membership: C. Dwyer, Chas. D. Irwin, and R. W. Coates. A committee of four, consisting of Messrs. Paxson, Crain, Pickering, and Robinson, were appointed to investigate their fitness for membership. Mr. A. L. Baker, formerly a member of the Chicago District, having been duly transferred, was admitted a member of this District.

Mr. McKenzie moved that a committee be appointed to make the necessary enquiries in regard to securing a hall suitable for meeting purposes. Carried.

M. D. Crain and K. McKenzie, were appointed on committee.

There being no further business before the meeting, adjourned.

C. C. ROBINSON, *Secy.*

THE TELEGRAPHER.

BALTIMORE DISTRICT.

Meeting called to order at 3:30 P. M., 4th inst., Mr. Chas. E. Ways in the Chair. Roll called—17 members present.

District Director arrived and took the Chair. Proceedings of previous meeting read and approved.

Mr. T. B. Maddox was duly elected a member of this District. An application from Mr. Jas. A. Laven was read, but there being no one present to vouch for him, his case was deferred until next regular meeting.

Committee not being present to report upon by-laws a special meeting was called for Tuesday evening, June 6th, to receive their report upon adoption of District by-laws.

The District Director announced the proximity of the Convention and the expiration of the official term of the District Officers and urged the necessity of timely action and judicious choice of representatives.

Mr. Yeakle moved the matter be made the special subject of our next regular meeting. Carried.

Treasurer's Report for the Quarter ending April 30th, 1865.

Jan'y 31 To Am't of unpaid Dues	\$ 8 50
April 30 " " " Dues for Quarter.....	90 50
" 30 " Initiation Fees.....	8 75
By Am't remitted, June 7th, to J. Partrick, Treas'r....	\$84 35
" " unpaid Dues.....	23 40

	\$107 75
April 30 To am't due N. T. U., unpaid dues, \$23 40	\$107 75

LOCAL FUND..

To Balance in my hands last Report.....	\$10 95
" Am't rec'd for Dues, Quarter ending April 30.....	18 40
" " " Fines, " " "	2 50
By Am't paid for By-laws.....	\$3 50
" " " for Postage.....	50
" Balance in hands of Treasurer.....	22 85

Balance to credit of Local Fund, \$22 85.	\$26 85

C. B. DAMERON, *Treasurer.*

Meeting adjourned 4:45 P. M.

SPECIAL MEETING, TUESDAY EVENING, June 6th—8 P. M.

Meeting called to order by District Director, but being no quorum adjourned.

An important feature in by-laws that were to be adopted at this meeting is the changing of the time of meeting from Sunday to Monday.

A. WILSON, Jr., *Dist. Director.*

M. H. KERNER, *Dist. Secy.*

NEW YORK DISTRICT.

Meeting held on the evening of the 6th inst., and in absence of District Director, was called to order by Local Director Christie. 21 members present.

A communication from the District Director was read, announcing the death of J. W. Fish, a member of this District. He died in Brooklyn, of typhoid fever. In the absence of friends to perform the last sad offices, this District, through the proper officer, assumed charge of the funeral and saw him properly interred in Greenwood. A committee was appointed to draft resolutions of sympathy with his bereaved widow.

District Treasurer's Report read and approved. Exhibits a balance of \$178 75 in Treasury after deducting \$88 paid for rent of room.

The following new members were elected: H. S. Henderson, Erie Line; Jno. J. Sabin, Geo. Durant, F. Catlin, F. A. Fenton, Geo. G. Reals, J. Tallman, Edward Johnson, of the U. S. Co.'s office; Geo. Gustin, J. F. Gormley, Julien Soule, Chas. C. Clarke, of the American Co.'s office.

Report from Committee on Room received. Room No. 52, 117 Broadway, had been secured at the rate of \$100 per annum. On motion a Committee composed of the officers of the District and Mr. John B. Oltman, was appointed to have it suitably furnished and to be in readiness for the next meeting.

After some further business, of a local nature, adjourned.

WALTER STEINHOFF, *Dist. Director.*

D. R. DOWNER, *Dist. Secy.*

ALBANY DISTRICT.

At our meeting, held last evening, we elected S. E. Mayo, Esq., a member of our District. I presume he is well known to telegraphers generally. We consider his name a tower of strength to the cause.

A. L. WHIPPLE, *Dist. Director*

CHICAGO DISTRICT.

Meeting called to order at three P. M., 11th inst. The minutes of the last (April) meeting were read and approved.

Mr. I. N. Bradley was, on motion, appointed agent for THE TELEGRAPHER for the Western Union Line, centering in this city. Mr. G. H. Rice and Mr. C. A. Jamison having retired from telegraphing were granted certificates of honorable dismissal from the Union. Mr. O. Jennings, of Chicago, was elected a member of this District.

After some discussion of matters of general interest to the District and the Union, in which nearly all present partook, the District adjourned for one month.

E. B. CHANDLER, *Dist. Director.*

GEO. MAKLE, *Dist. Secy.*

WASHINGTON DISTRICT.

The eighteenth Regular Meeting of this District occurred this evening, 3d inst. In the absence of the Secretary Mr. Young was chosen Secretary, *pro tem.*

W. H. Shreffler, of Meade's Head Quarters, and R. M. J. Paynter, of the American Telegraph Office, Washington, were proposed and elected members.

An amendment to this District's By-laws, in effect, changing the time for Regular Meetings from Saturday to Sunday, failing to receive a requisite two-thirds vote of all the members of the District was declared defeated. The vote stood as follows, viz.: Whole number of members, 58; necessary to adopt, 35; in the affirmative, 29; negative, 20; not voting, 4.

A resolution taxing non-resident members of the District one dollar per annum was called up from the table and passed.

The Director suggested the propriety of putting candidates in nomination, at the July meeting, for delegates to the Chicago Convention, also for District officers.

Adjourned 9:25 P. M.

WM. H. H. CLARKE, *Dist. Director.*

M. MAREAN, *Dist. Secy.*

BOSTON DISTRICT.

REGULAR MEETING called to order at 8:30 P. M., 7th inst., District Director in the Chair. The attendance was unusually large. Amongst those present were several members from Providence and Worcester.

The minutes of the previous meeting were read and approved.

Mr. Albee (Local Director of the People's Office in this city) presented the name of Mr. H. N. Rowell, Vermont & Boston Co., Concord, N. H., for membership, and he was unanimously elected.

Mr. Upham moved that each and every member of this District be taxed ten cents per month, payable annually, semi-annually, quarterly, or monthly, at the option of the District Director, the amount thus raised to be used for the payment of District expenses. Carried.

The same gentleman also moved that the District Director be and hereby is authorized to purchase a copy of "Cushing's Manual" for his use as presiding officer, the same to be paid for from the District funds. Carried.

Mr. Albee moved that a committee of one be appointed by the Chair to dispose of the gas-fixtures which were purchased for the room formerly used for our District meetings. Carried. Mr. Albee was appointed such committee.

Mr. Davin offered the following, in addition to the Local By-laws: "Candidates for admission shall be proposed at least one month previous to initiation, unless otherwise ordered by a majority of the members present at such meeting. Adopted.

The Director read a letter from the Chairman of the Executive Committee, stating that that Committee approved the action of this District in expelling Messrs. F. N. Benson and J. J. Bates for non-payment of dues.

Mr. Wheeler resigned the Chair to Mr. Reese, and, after making a few remarks, moved that the delegates to the National Convention from this District be instructed to propose the following amendments to the Constitution: [We indicate here only the objects of the proposed amendments, to avoid a too extended report.]

ARTICLE 1. Section 1. Clause 3, To provide for a District Treasurer, the object being to lessen the duties of the Director.

ART. IV. Sec. 1. Clause 7, To define the duties of the District Treasurer, among which are, collecting and remitting the Union dues to the Treasurer of the National organization; and making clause 7, as it now stands in the Constitution, clause 8.

ART. VII. Sec. 2. Clause 2, To read, "by the payment of all regular dues accruing from date of last payment up to the time of readmission," as by the present rendering of the clause the Union loses six months dues of every readmitted member.

ART. IX. Sec. 2. Clause 3, To better provide for the transfer of members from one District to another.

ART. XI. Sec. 1. Clause 1, To make it read correctly.

These proposed amendments were unanimously approved by the District, and ordered to be laid down as part of the instructions to our delegates.

Mr. Wheeler also proposed the following amendments to the Union By-laws, and they were also approved and disposed of in the same manner as the proposed amendments to the Constitution.

ART. III. Sec 1. Clause 1, The Local Directors to forward dues to District Treasurer, instead of Director.

ART. III. Sec. 1. Clause 3, Leaving out the portion relative to monies received by the Director on account of the Union.

ART. III. Sec. 1. Clause 4, (new clause) To provide that the District Treasurer shall notify the Director relative to dues of members in certain cases.

Mr. Stover proposed ART. IX, Sec. 1st, be amended to read, The District Director and District Treasurer, at or without a special meeting, &c.

ART. X. Clause 5, To provide that the *District* Director instead of the Local Director, "shall make arrangements for the holding of the Convention," as in many places there are several Local Directors, and there can be but one District Director in any place.

Mr. Davin moved our delegates be instructed to propose an amendment by which ART. II. Sec. 1. Clause 4 of the Constitution shall be rendered more explicit.

A long discussion ensued as to the real meaning of the clause as it now stands, the final conclusion being that the construction put upon it by the editor of THE TELEGRAPHER was probably the correct one; and that this District is entitled to two Delegates. Mr. Davin's proposition was unanimously approved.

Mr. Davin also offered the following propositions, which were approved and properly disposed of:

That our delegates suggest that the meeting of the Convention shall be on the first Wednesday instead of the first Monday in September, and that the hour of meeting shall be 10 A.M. instead of 2 P.M. Also, that our delegates shall move the insertion of a clause in the Constitution providing for honorary membership in certain cases.

Mr. Powers proposed that our delegates shall move the insertion of a clause expelling members of the Union who engage in teaching the art of telegraphy in Commercial Colleges or other places outside of regularly established telegraph offices. An interesting debate took place on the subject, participated in by Messrs. Stover, Davin, Upham and others, the unanimous opinion being that such pretended instruction offered by these self-styled "Telegraphic Colleges," is detrimental to the interests of Telegraph Companies and the public generally, as well as to those of the profession; and that instruction could nowhere be properly given except in regularly established offices and on actual working lines.

Mr. Powers' proposition was approved without a dissenting voice, and disposed of in the same manner as the preceding propositions.

Mr. Upham moved the meeting proceed to nominate candidates for delegates, and also for district officers, in order that their relative merits may be duly considered and discussed before the time of election. Carried.

The directors suggested that there be four candidates for delegates, and also four candidates for substitutes, two of which shall be elected to represent us, in case either or both of the successful candidates are unable to attend the Convention. Approved.

Upon motion of Mr. Albee the Chair appointed a committee of four, consisting of Messrs. Upham, Davin, Albee and Ashley, to retire, and after consultation to report the names of candidates.

The Committee reported as follows:

For Delegates—H. W. Wheeler, J. W. Stover, Gerrit Smith and G. H. Albee.

For Substitutes—J. W. Duxbury, D. D. Devereux, and the two regular candidates who are not elected.

For District Director—H. W. Wheeler.

For District Secretary—H. S. Martin, D. C. Roberts and P. P. Allen.

The nominations were unanimously accepted.

On motion of Mr. Labonte the meeting adjourned at fifteen minutes past eleven o'clock.

H. W. WHEELER, *Dist. Director.*

HENRY S. MARTIN, *District Secretary.*

BOSTON, June 7th, 1865.

The associates of the American Telegraph Office in Boston, met at the Office of Supt. Wood, at 10 o'clock, on the 14th inst., for the purpose of taking appropriate action upon the death of the respected Manager, Mr. Wm. F. Richards, who died at Somerville, Mass., on the 13th of May, after a brief illness.

The meeting was called to order by Mr. C. F. Wood, who was chosen Chairman.

Mr. G. F. Milliken, the Assistant Manager was chosen Secretary, and on motion a Committee of six were appointed, consisting of Messrs. Milliken, Davin, Harlow, Lotts, Henderson and Barrett, to draft resolutions expressive of sympathy. After a few remarks by the Chairman the meeting adjourned until afternoon, to enable the Committee to prepare the resolutions, and at three o'clock Mr. Milliken, in behalf of the Committee on resolutions, presented the following, which was unanimously adopted:

Whereas, It has pleased Almighty God, in his infinite wisdom, to remove from the cares of this life, our dearly beloved Manager, Wm. F. Richards, endeared to us as a man of fine sensibilities, marked purity of character, a Christian in all the

relations of life, and one who possessed in the fullest degree the confidence of his employers, the love of his associates, and respect of the community at large; and

Whereas, Words cannot sufficiently express the sorrow which his associates feel on this sad occasion; yet they desire to place on record evidence of the deep sensibility of the loss sustained, and as a mark of respect to the memory of deceased, it is

Resolved, That in the death of Wm. F. Richards, the American Telegraph Company has lost one of its most faithful servants, the profession one of its earliest members and brightest ornaments.

Resolved, That as a token of respect to the memory of our departed friend, we will wear the usual badge of mourning for thirty days.

Resolved, That we tender the family of the deceased our heartfelt sympathy; and that the Chairman of this meeting transmit to them this expression of our sorrow in their bereavement.

Mr. Davin moved that the Secretary of the meeting be authorized and requested to cause the foregoing resolutions to be handsomely engrossed, framed, and the signatures of each and every employee affixed thereto, and handed the Chairman for presentation to the family of deceased; the expenses thereby incurred to be defrayed by an equal assessment upon the attaches of Boston office; unanimously agreed to.

The object having been accomplished for which the meeting was convened it was moved to adjourn.

The American Company have recently put up for use, in their main office in this city, a monster switch, the invention of Mr. Geo. F. Milliken, of their Boston office. The base of this switch, which is of polished rose-wood, is about five feet square, ornamented at the top, and is arranged for fifty wires, thirty-seven of which are now in use. All the batteries are grounded at the switch and can be put upon any wire, or all connected as one monster battery. There are besides the Special Batteries, four "General Batteries," as they are termed. The battery and instrument connections are made with the switch by means of insulated wedges which are shoved in between a plate upon the base and a brass spring. This is done without breaking circuit which is closed always, whether connected with the instruments or not. One of the great features of this connector is the facility with which wires are connected through the office. Upon the face of the switch are fifty raised circles, through which project thirty brass points, which represent twenty-five letters of the alphabet, four general batteries, and one the ground. Over these brass points in each circle, moves a lever which is fastened by a bolt in the center of the circle. This lever represents the line wire. All these brass points are connected at the back with a corresponding letter of some other circle. If you wish to connect No. 1 wire South with No. 3 wire East you simply place the end of the lever representing the former wire on any letter in the circle and place the lever representing the last named wire upon the same or corresponding letter of its own circle. This follows good throughout the many circles. If it is desired to put a large battery upon any wire it is done by simply placing the lever representing the proper wire upon one of the brass points marked "G. B." (general battery.) If a ground is desired, place the lever upon the point marked "G. D."

The switch, its table and accompaniments make a handsome piece of furniture. This fine piece of mechanism was manufactured by Mr. John Polsey, of Boston.

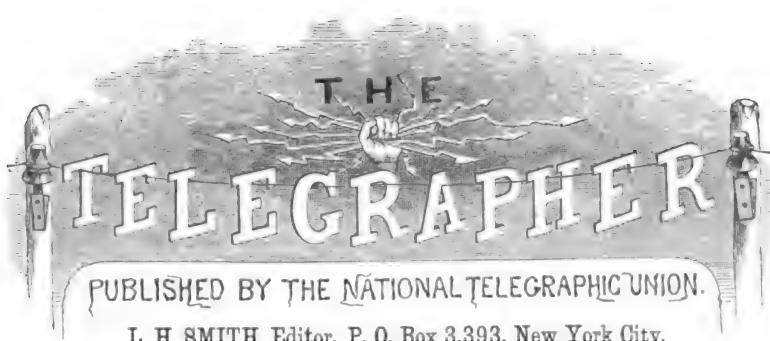
The total number of pieces used in its construction are 7,111. Total number of wire connections 1,958. Of the former amount there are 1,750 brass bolts; 3,500 brass nuts; 450 screws; 350 connecting plates; 200 pieces hard rubber; 200 pieces flexible wire.

It has fallen to the lot of the New York District to be the first to perform the sad offices provided for in clause 2, ART., VI of the By-Laws. It seems fitting that the benefit of this clause should first be proved by the New York District. We speak of the solemn rites performed by the proper officers of this District over the dead body of Jno. W. Fish, who died, leaving his wife with one child, penniless and away from all her relatives. If any doubting one could have witnessed the crushing sorrow and tormenting anguish which it was our lot to witness, and to realize how this agony was softened by the kind offices of District and Local Directors Steinhoff and Christie, would never ask, "What good does the Union do?"

A collection amounting to \$—— was taken up among the operators in the several offices in this city, and presented to the widow. We understand the United States Company made the widow a handsome present of "Greenbacks."

The reprint of No. 1 of THE TELEGRAPHER will be ready for delivery about the 15th proximo. Those desirous of obtaining a copy must send a special order, enclosing the price (17c.) for single copies, as we cannot alter our books so as to include this number with the subscriptions. This reprint contains corrections of errors which were made in the hurry of putting this initial number to press, as also the new headings.

Why is the telegraph like a musician? Because it beats time?



PUBLISHED BY THE NATIONAL TELEGRAPHIC UNION.

L. H. SMITH, Editor, P. O. Box 3,393, New York City.

MONDAY, JUNE 26, 1865.

TO CONTINUE.

HAVING said our say upon the election of Delegates, we continue our remarks preparatory for the Convention.

The Districts should, at their August meetings, if practicable, or at a special meeting called for the purpose, instruct their Delegates fully as to their course at the Convention, the Delegates of each District should have a meeting to elect a chairman of their several delegations, compare their bills and resolutions, and decide upon a plan of action when in convention. We urge this that the labor may be equally distributed, and that no confusion may arise at the Convention by the motions of the several members of any one delegation.

We ask, for obvious reasons, that every Delegate who intends or hopes to place anything before the Convention for its action, have his motions, resolutions, or bills written out as he intends to offer them, and as they should be, paying a slight attention to technicalities. As our doings will soon be legal, we consider this essential, and we ask that every member sign the bill which he offers. By observing these suggestions, the accuracy of the record of the Convention will be insured by lessening the labor and complexities of the Recording Secretary. In this connection we would suggest, that if the expense be not too great, a stenographer be employed to take down *all* that transpires in the several sessions. The unavoidable inaccuracies of the records of the first two Conventions render this course and expense almost necessary. A true and correct transcript of the proceedings must be written out after each session in order to insure their publication in the then forthcoming number of THE TELEGRAPHER.

It is the duty of every general officer to be present at the annual meetings, and we expect each one to make arrangements in ample season to insure his presence.

The new clause (5) of Art. I, Sec. III, of the Constitution provides that :

"An Auditing Committee of three shall be appointed by the President at each National Convention, whose duties it shall be to examine into the accounts of the Treasurer, and attend to all other duties appertaining to their office."

The spirit of the clause clearly includes the accounts of THE TELEGRAPHER, and we invite and desire that this committee turn their attention to our financial matters.

If this committee is not appointed until the convening of the Convention, it will necessitate the transporting to Chicago of the Treasurer's and our account books. This might be obviated if the Directors will notify the President at an early day, by telegraph, of the names of the new Delegates, when he might appoint a committee composed of one Delegate from the three cities, New York, Philadelphia, and Baltimore; this division and selection will insure a thorough auditing and an easy access to the books.

Sessions should be held morning, afternoon, and evening; the first two should be of three hours' duration, and the last of two at least. In this way, six or seven sessions will enable the members to finish the business in hand. The Local Director of Chicago will observe by the last half of the 5th clause of Article X, that he is "empowered to make

all necessary arrangements for the holding of said Convention." A room large enough to accommodate thirty or forty persons, should be selected, and a number of tables with plenty of writing materials for the officers and members should be provided.

The election of general officers for the ensuing year must be held on the first Monday in September, and on the first day of the Convention, and as the election is the seventh "Order of Business," it is likely to fall upon the first session; but as some canvassing and interchange of views will be necessary, we advise that the election be made the special order of the evening session on Monday, September 4th. We do not propose electioneering in the columns of THE TELEGRAPHER, but as it will be looked to for some indication of who should have the honors for the coming term, we will simply state our views: We believe in distributing the honors, yet it is quite necessary, in our opinion, that the President and Vice-President be re-elected. As it is the Corresponding Secretary's duty to do the bulk of official correspondence, he must of course be chosen from among the members of the District wherein the President resides. If President Hammond continue in office he will indicate who will be acceptable for the office. The Recording Secretaryship should be given to either Mr. Sawyer, of Maine, or Mr. Peabody, of St. Joseph. We are not inclined to speak of any change of the Secretary or Editorship.

As preliminary and other business will be brought first before the Convention, we advise that the amendments to the Constitution and By-Laws be made the special order for Tuesday, commencing with the morning session. We will speak of the amendments first. Care should be taken when offering an amendment, that it does not conflict with some other clause in the Constitution or By-Laws. This error occurred two or three times at the first Convention.

To insure a prompt attention to official duties, and divide the labor equally, we consider it important that the District Secretaries and Treasurers be recognized as District officers of the Union. Without this recognition the District and Local Directors of the large Districts are crowded with the multiplicity of their duties. The last two sentences commencing: "The District organizations," of Clause 3, Art. I, should be striken out and the clause be made to read "of one District Director, Secretary, and Treasurer, and a Local Director for each office."

As the Union extends and the membership increases the number of Delegates should be decreased. Clause 4, Sec. 1, Art. II, will need amending, to read as follows:

"The number of Delegates shall not exceed one for every fifty members, but each District shall have at least one Delegate, and one extra Delegate when the exact proportion shall be ten members in excess."

Or as follows:

"The number of Delegates shall not exceed one from each District, except a District numbers over seventy-five members, when it shall be entitled to two Delegates."

President Hammond recommends that in consideration of the absence of so many telegraphers from their duties, and of the expense, that the Delegates meet but once in two years, but special sessions be called when deemed necessary by the President, by the advice of the Executive Committee, or upon a written application of a specified number of members. This consideration of the President is laudable, and we commend him for it, but we cannot agree to the bi-yearly meetings. The benefits of our yearly gatherings, in our opinion, are incalculable, and overbalance their expense. Perhaps when the Union grows older, and is more firmly cemented, a meeting once in two years will be sufficient, but now it will be injurious. If, however, the President's recommendation should prevail, care should be taken to amend all the clauses which will be affected by the change, viz.: Clause 4, Art. I; Clauses 2 and 5, Sec. 1, and Clause 1, Sec. 3, Art. II; Clauses 1 and 2, Sec. 1, Art. III, of the Constitution. In Clause 5, Sec. 3, Art. II, the words "and Editor of THE TELEGRAPHER," should be inserted after the words "accounts of the Treasurer."

As Section 4, Art. III, confers upon the President the veto power. Clause 1, Art. IV, should be amended to make it his duty to sign all the bills and measures of the Conventions.

Should the Convention decide that hereafter each District shall have a Secretary and Treasurer, two clauses must be added to Art. IV, embodying the substance of Clauses 2 and 3, Sec. 2, Art. II, of the District By Laws, with such other additions to these clauses as will set forth the new duties of the officers.

As the substance of Clause 4, Sec. 2, Art. IX, is included in the first clause of the same section by an amendment passed at the first Convention, it (Clause 4,) should be stricken out and the present Clause 5 be made clause 4.

The present clause 5 of the Article last mentioned, should be so amended as to permit members leaving telegraphing to continue their membership in the usual manner, unless they desire a "certificate of honorable withdrawal." We do not see why a member should be thus turned out of the ranks simply because he has left telegraphing. If it were our case we should greatly regret to be turned loose without our consent, and besides this, the day will come when the duties of the Treasurer and Editor of THE TELEGRAPHER will be so great as to take them wholly from telegraphing, which could not be done if this clause remains in its present state.

Clauses 1 and 2, Art. XI, have, as yet, except perhaps to a limited extent, been a dead letter, and it seems to us now that this duty must be transferred from the Corresponding Secretary to the several District Directors. We appeal to the Districts to consider this change and instruct their Delegates accordingly.

Article XII must remain inoperative unless a way be provided for the Executive Committee to investigate the qualifications of members before the necessity arises for them to issue certificates of qualifications. The delay which will ensue by the present law will prove an obstacle to its being carried out. All the foregoing are amendments to the Constitution.

THE Philadelphia District has revived a subject which was a favorite theory with some of its members at the last Convention, but was not then brought out publicly. They now seem inclined to put it before the next annual gathering. It is not our purpose to forestall the probable action of the Convention by our arguments. We will simply say now, that we were opposed to the new doctrine last year and are still. Mr. Woodruff's argument, that of precedent, is not sufficient, and we beg leave to assure Mr. Buckwell that instead of an accumulation of money being an evil, we consider it a great blessing, which we shall be happy to explain when we have the pleasure of meeting him at Chicago.

We desire, however, that the Districts fully consider this subject, so that the Delegates may act understandingly.

We have long noticed a misconception of the office of Local Director, and have long desired to say a word upon the subject, but other matters have prevented.

The word "offices," as used in Article VIII, of the Constitution, was intended to mean places, or rather cities and villages. It will be remembered that when the original Constitution was adopted there were but two lines of any great extent in the United States, and as a general thing but one office in each city or village. Where two lines came together their relations were such as to make one office for both desirable. As this was the view then taken, and as the word "offices" has been interpreted by those high in authority to mean places, we consider but one Local Director necessary in places where there are more than one office. A District can be formed only where there are more than five members in one place, and a Local Director where there are two or more, and less than five members. We consider that a Local Director acts in the capacity of a Vice-President to the Director of a District. Some Districts have several Local Directors in one place, and we fear two or three Districts have been formed without the requisite number of members at their headquarters, and one, we believe, has its only Local Director in a neighboring town. Now, in our opinion, this is wrong. There should be but one Local Director in each place, (city or village), and one in every place which has two or more and less than five members, who takes charge of all matters under his jurisdiction, and makes his report to the Director of the District to which his Local District, belongs. Where there is but one member in a place he should make his report directly to the Director of his District. When a Local District passes its constitutional limit of members it becomes a District and should be organized as such. If the old idea of every office having a Local Director, every lone and solitary occupant of a small office would be a Local Director. It was to obviate this multiplicity of offices that Clause 1, Art. VIII, was amended.

TELEGRAPHIC MISCELLANEA.

ANSWER TO ENIGMA.—A "Cross."

SOUTHERN TELEGRAPH LINES.—We take the following from the Mobile *News* of the 6th May.

Mr. C. B. Smith, Manager of the U. S. Telegraphs, District of Mobile, working under orders from the Commanding General, has, by his indomitable perseverance and strenuous efforts, and the cordial co-operation of Mr. Van Horn, President Southwestern Telegraph Company, opened communications with the following places:

Whistler, State Line, Shubuta, Meridian, Gainesville, Artesia, Citronelle, Buckatuma, Enterprise, Lauderdale, Macon, Columbus.

This re-opening of lines has been accomplished within the past few days, and too much credit cannot be awarded to Mr. Smith and the chief constructor, Mr. Adam R. Shoup.

The chit chat of the "lightning jerkers" was truly a pleasant reminder that peace has made us all brothers.

Telegraph communications are being pushed on toward a rapid completion to New Orleans, and by way of Columbus, we will soon be bound with the entire Union with a line of iron, and the connections are all well soldered.

Capt. W. G. Fuller, Superintendent of Military Telegraphs, Army and Division of West Mississippi, can well be proud of his representatives in the District of Mobile.

I do not know what restrictions will be placed on commercial business, but those having such will learn full particulars at the receiving-room, corner of Royal and St. Francis streets, where it is said the first young nephews of Uncle Samuel go it entirely on

TICK.

COLUMBUS, Miss., May 5.

C. B. Smith, Manager, &c.

The lines are working on the Mobile and Ohio Railroad as far north as Baldwyn, thirty-one miles south of Corinth. On the Southern Road, from Meridian to Clinton, thirty five miles from Vicksburg. On the New Orleans and Jackson Road from Canton, Miss., to Amite sixty-eight miles from New Orleans. On the Mississippi Central Road, from Canton to Holly Springs. On the Grenada to Senatobia, forty miles from Memphis. We also have a line from Osyka, Mississippi, to Clinton, Louisiana and Woodville, Miss.

J. V. H.

The storm of Thursday night did much injury to the telegraph lines. The wires are down between this place and Bonnet Carre, so that we are cut off from communication with Baton Rouge, and the connection between New Orleans and Southwest Pass is also broken. The overflow which washed away a portion of the Opelousas Railroad track also destroyed the telegraph line at the same place, and cut off communication with Brashear City. The linemen have gone out on the different lines, and they will soon be restored to working order.

The new line ordered to be built by General Canby, along the coast, connecting Mobile and New Orleans, is making rapid progress under the efficient management of Mr. C. B. Smith, Manager of the line. The telegraph is already working to Pascagoula, the terminus of Mr. Smith's district.

The Southwestern Telegraph Company's lines are now (May 20) open from Louisville to Mobile. Communication was opened between Louisville, Memphis and New Orleans on May 27th.

The several Companies commenced taking business for New Orleans and other seaboard cities on the 30th ult. The first "Special" newspaper dispatch was sent to the New Orleans *Times* on the following day.

ACCIDENT TO A TELEGRAPHIC CABLE.—The telegraph cable which is laid along the bottom of the St. Lawrence, between Prescott and Ogdensburg, was broken on Wednesday, May 17th, by the dragging of a vessel's anchor. The break has since been repaired under the superintendence of Mr. Angus Grant, Inspector of the Montreal Telegraph Company's lines, and communication between the two sides of the river is now restored.

A despatch to the New Orleans *Times* says that the operator at Enterprise reports that the shock of the explosion at Mobile on the afternoon of the 23d ult. was heard at that station, nearly 100 miles distant.

THE NEWFOUNDLAND CABLE.—The cable between Aspy Bay N. S., and Newfoundland, connecting the lines of the Newfoundland Telegraph with those of the Nova Scotia line, met with an accident on the 5th inst., probably from the anchors of some of the numerous vessels in Aspy Bay. The weather has been somewhat rough the past two days, but it is anticipated that the cable can be under-run and repaired within a short time.

A telegraph line is to be constructed from San Antonio and Austin, Texas, to Matamoras, Mexico.

ADVICES received on the 22d May, at San Francisco, by the last Northern steamer, announce the commencement of the Russian Overland Telegraph from New Westminster, proceeding northward. The work is under the superintendence of Edward

THE TELEGRAPHER.

Conway. Major Pope left here on the Sierra Nevada, and will take up the explorations from where Mr. Conway is working.

CHARGED WITH FORGERY.—Thomas Connor, aged 17, a telegraph operator by profession, was arrested in Brooklyn, L. I., on the afternoon of May 20th, by Officer Nicholson, of the Forty-fifth Precinct, charged by Theodore C. Disbrow with having forged a check for \$100, purporting to be signed by Joshua Heath, a boss cooper, of North Sixth street, Williamsburgh, on the Manufacturers' Bank, for which, it is alleged, he obtained the money.

In a note from Mr. Cyrus W. Field, dated London, 17th May, 1865, he says: "We have now over 2,200 nautical miles of cable completed, and everything is going on well, and we expect to sail the last of June or early in July."

The cable was expected to be complete in another fortnight, and all along side of the Great Eastern by the end of May.

The Great Eastern goes to sea under the most favorable auspices, her commander, Capt. Anderson, of the China, having been permitted by the Cunard Company to select his own crew.

ACCIDENT TO COL. SANFORD.—Col. E. S. Sanford, President of the American Telegraph Company, met with an accident on the 2d inst., while out riding in Brooklyn, resulting in the breaking of one of the small bones of his leg and severely injuring his knee. He is suffering considerable pain, but is doing well.

PERSONAL.—A Mobile correspondent of one of the New York papers, in an account of the removal of the obstructions from Mobile harbor, says:

"A most important work has been performed here by Mr. David E. Elphick, of Lyons, N. Y., an attache of the Telegraph Corps. Being a thorough electrician, he was detailed to clear the bay and rivers of obstructions of all kinds. The obstructions consist of barges and boats, filled with bricks and old iron, with torpedoes planted thickly among them. There was fully a mile of the Mobile river filled in this way, but all are now broken up, and our gunboats and transports move safely up and down without danger. Mr. Elphick was furnished with a yawl and crew by the naval authorities, and in this boat would take one or two torpedoes and his electric battery. Choosing spots where the obstructions were thickest, he would attach his wires to a torpedo, sink it, and retiring a short distance, blow the whole mass into the air. This he has repeated until, as before stated, Mobile bay and river are again open to navigation." We learn that a rumor is current that Mr. Elphick is dead—having been killed by the explosion of a rebel torpedo. We do not, however, know upon what foundation this rumor rests.

PERSONAL.—Mr. Henry Holland, of the American Company's Sandy Hook line in this city, has gone on a prospecting tour through Montana. Success attend his travels.

Mr. William Blanchard, a printing operator, who was sent with another operator to California, in December, 1859, to introduce the Combination Printing Instrument on the shores of the Pacific, returned to this city in the Steamship Costa Rica, on the 8th inst., after an absence of five and a half years. He returns in good health and is well tanned up. He goes to a situation with the American Company.

Mr. Chas. F. Simmons, one of, if not the most rapid printing operator in the world, who accompanied Mr. Blanchard to California, has, we learn, been appointed to a situation in the Fire Alarm Telegraph in San Francisco.

Messrs. R. H. Smith and D. W. McAneny, of the American Co's. New York office, have gone on duty at the War Department, Washington, to work the Southern lines.

EXPLOITS OF LIGHTNING.—The Brattleboro' (Vt.) *Phoenix* says: "On the evening of the 11th ult., during a thunder-storm in Jacksonville, Vt., the lightning struck the ground on the Peter Holbrook Hill, half a mile from the village, with such force as to plow a ditch, about five rods long and four or five feet wide, and three to five feet deep, throwing out stones of several hundred pounds weight a distance of two or three rods, and branched out from the ditch in all directions, perforating and tearing up the earth for more than ten rods, and performing many curious freaks among the trees, roots, and stones. The shaking of the earth was tremendous."

AN IMPORTANT TELEGRAPH CONTRACT.—A contract has recently been completed between Francisco Faraya, Consul-General for the United States, representing the United States of Bogota, South America, and a firm composed of residents of New York, for the erection of a line of electric telegraph, to connect Bogota with Nare. The communication, when completed, will be from the City of Bogota, via Ambelma and Honda, along the banks of the river Magdalena to Nare, which latter place for some time, will remain the terminus of the wire. This is one of the first attempts at the introduction of the magnetic telegraph into South America, and is only the initial movement which will probably result in connecting the states of that country with the United States.

It has been suggested that "all the District Directors be requested, through THE TELEGRAPHER, to prepare full lists of all members of their Districts together with the standing and condition of their Districts, at the close of the year, and have the same published in these columns." The suggestion is a good one, and we will here request that all the Directors who concur in this to prepare such lists and take or send them to the Convention, there to be read, placed on record and passed to us for publication.

We are in receipt of a copy of Low's Railway and Telegraph Directory, compiled by James W. Low, and published by J. S. Keeling, 16 Broadway. This little volume is invaluable to Telegraph and Railroad men as a book of reference. Price \$1.50. Address Mr. Low, Post Office, Box 1,624, New York. Send for one.

AMERICAN TELEGRAPH TO CONWAY.—Colonel J. W. Robinson, of this city, Superintendent of the White Mountain Section of the American Telegraph Company, has lately completed the arrangements, and received instructions from the Directors of the Company, to construct the line from Meredith Village to North Conway. Offices will be established at Centre Harbor, Tamworth and Conway. By this arrangement all the Mountain Hotels will be connected by this line of telegraph. We are glad to learn that this arrangement has been effected, and great credit is due to Colonel Robinson for his perseverance and interest for our State.—*Concord (N. H.) Ind. Democrat.*

ASSASSINATION TRIALS.—Mr. —— Reeve, operator at the St. Nicholas Hotel, in this city, was called to testify to the sending of a message for J. Wilkes Booth when he was last in this city.

J. C. Courtney, operator at Charlotte, N. C., testified that the telegram which Davis received from Gen. Breckinridge, dated Greensboro', April 19, and read to the crowd as follows:

"President Lincoln was assassinated in the theatre on the night of the 14th instant. Secretary Seward's house was entered on the same night, and he was repeatedly stabbed, and is probably mortally wounded," passed over the wires.

THE ATLANTIC CABLE.—The manufacture of the Atlantic telegraph cable was completed on Monday, May 29. No time will, of course, be lost in getting the final installment of the cable on board the Great Eastern, which is expected to start early in July. An interesting entertainment was given on the occasion of its completion. The finishing strokes of the work were witnessed by a numerous and distinguished party, who burst out into a spontaneous and hearty cheer as the end was deposited in the tank. A sumptuous banquet was given in honor of the event at the Ship Tavern, by the makers of the cable, which was marked by the usual number of toasts and speeches. The cable contains twenty-five thousand miles of copper-wire in the conductor, about thirty-five thousand miles of iron-wire in the outside covering, and upwards of four hundred thousand miles of strands of hemp. It has been made on an average of seventeen miles a day, complete, and some days its outside covering of iron and hemp has been laid on at the rate of one hundred and seventy-three miles a day. It has been tested in sections, and as a whole, and is now (all but five hundred miles) safely loaded on the Great Eastern, in good working order. It is capable of bearing a strain of seven and three quarter tons, and is yet so light that it will support eleven miles of its length in water. It will be continually under test as it is laid, so that any accident happening to it will be instantly detected.

THE LABORERS in the coal mines in Schuylkill and Carbon Counties, Pa., became highly excited at the announcement on Saturday, 27th ult., that their wages were to be reduced.

Seven dollars a day had been paid laborers in the mines, and now in view of the stringency of the market it was proposed to reduce the rate to six dollars. This had created so much excitement among the laborers that the destruction of valuable property was anticipated. At Ashland two coal-breakers were burned by the rioters, and for a time the telegraph wires were severed.

Major Pope's command, of the Overland Telegraph Expedition left Fort Yale, B. C., to which point the line is complete, on the 3d inst., all well.

In a pamphlet of "The Central Montana Gold and Silver Mining Co." which lies before us, we find the names of Walter O. Lewis, Supt. of the American Co's. Sandy Hook Line, as President; S. J. Burrill, formerly a printing operator, as Treasurer, and Bedford C. Crockett, formerly a constructor of telegraph lines, as Supt. and Mining Engineer, and among the list of Trustees we find the name of Walter H. Gilson, formerly Secretary of the Old House Telegraph Co., Boston.

Application has been made for the necessary papers to form a District at Cincinnati.

INDIA.—The Government of India has promised to construct a double line of telegraph to Kurrachee, and also to complete a land line to the head of the Persian Gulf.

The attention of our readers is called to Ferd. Mayer & Co.'s advertisement, upon the last page of this issue. We speak from a long acquaintance and can recommend their work to the readers of *The Telegrapher*. This firm lithographed the certificates of membership of the N. T. U., and are first-class artists.

It will be observed, upon reference to the fourteenth page of this issue, the Stearn's Paratonnerre is advertised and now ready for sale. Any one desiring to test this valuable machine will serve their end by addressing E. Valentine, Milwaukee, Wisconsin.

We are pleased to present to our readers, in this issue, the first letter from our correspondent with the Overland Telegraph to Russia. It is full of interest and well worth a perusal.

In our August issue we hope to present the cut of Hicks' first Repeater, in accordance with our declared intention at some future day so to do. It is also our intention soon to print Sec'y of State Seward's letter upon the Russian Overland Line. We do this, not as an item of news, but to place this important document on record in these pages.

Mr. Bates, the chief operator of the Government Lines at the War Department, desires us to state that the story going the rounds of the press stating that the wires around the fortifications of Washington were broken within fifteen minutes after the assassination of the President, is untrue, as nothing of the kind occurred. The Baltimore and Ohio Railroad wire was opened for a few minutes in the Washington office, which might have given rise to the story.

PATENT CLAIMS.—47,846.—*Lightning Rod.*—S. A. Mitchell, St. Louis, Mo.: I claim the separation or division of the main point, H, into two bars connecting by means of branches, d, with the stem, B, of the rod, substantially as described. 47,910.—*Telegraphic Post.*—Francis Webb Shields, Westminster, England. Patented in England, October 6, 1864: I claim the construction of telegraph posts of separate parts, one of which is suitable for being driven into the ground, while the other is provided with means for securing the insulator and is suitable for being attached to the post in the ground, substantially as herein described.

THE FIRST TELEGRAM TO THE ASSOCIATED PRESS.—“CHARLESTON, Wednesday, June 7, 1865.—The steamer Grenada, Captain Baxter, from New York, arrived this morning at seven o'clock.

“Admiral Dahlgren goes north in the ‘Dosen.’ Most of the naval vessels of the squadron have gone home, north or south. The North and South Atlantic Blockading Squadrons are to be consolidated under Commodore Radford.

“The steamer Delaware has been wrecked off Fort Johnston.”

TELEGRAPH OFFICE AT THE BOARD OF TRADE BUILDING.—The Western Union Telegraph Company has opened an office for public business in the new Board of Trade building at the foot of Shelby-street. Mr. James G. Kendall, well known throughout the United States as an expert electrician and a courteous gentleman has been appointed manager, and extraordinary facilities for the rapid transmission of dispatches have been placed at his disposal. During the sessions of the Board, the Telegraph office will be in direct communication with the main hall by means of a tastefully arranged window, so that, without leaving the room, members may have their messages transmitted in any direction, and in the quickest possible time. The office will be kept open the entire day for the accommodation of merchants and business men generally.

GONE HOME.—Mr. Joseph Fowles, the telegraph operator from Palmyra who was run over by the cars at the Lyons station on the night of Dec. 31st, has so far recovered from his injuries as to be able to travel; and on Tuesday morning, May 16, he started for his home in Ithaca, accompanied by his parents. Careful nursing and efficient surgical aid have done more for him than even the most sanguine could have expected. The foot from which all of the toes were cut, has entirely healed; while the bones of the other leg, which were broken in several places between the knee and ankle, have united firmly, and the leg has nearly healed. The patient has been able for several days to get about on crutches; and it is thought that he will be able to lay aside even these, in a few weeks, and walk nearly as well as before the accident.—*Lyons Republican.*

The American Co., have now one wire working overland via Fredericksburgh to Richmond, and preparations are making to string others over this route as well as throughout the South. The wires south of Richmond are in bad condition, owing to Sherman.

Mr. Cyrus W. Field had returned to London after visiting Valencia to arrange for the laying of the shore-end of the cable.

PROMOTIONS.—Mr. A. P. Sanford, of Cleveland, to be Train Dispatcher on the Western Divisions of the A. & G. W. Railway; Mr. R. C. Healy to the same position on the Mahoning Division, and Mr. G. D. Butler to be Division operator of the telegraph line on the First and Second Divisions of the same roads. These appointments took effect first of April last. Headquarters at Meadville, Pa.

APPOINTED.—Captain J. C. Van Duzer, Ass't Sup't of Military Telegraphs in the Department of the Tennessee, to the Department formerly under the control of the late Captain Sam. Bruch, and also to the Superintendency of the South Western Company's lines.

Mr. Geo. B. Hicks, of Cleveland, formerly Associated Press Agent at that place, to Superintendency of the S. W. Division of the W. U. Company's lines.

Mr. Jas. G. Kendall, late chief operator East, in the American Co.'s New York office, has been appointed Manager of the Western Union Co.'s Board of Trade office in Detroit.

NEW OFFICES OPENED by the United States Co.: Ballston Spa, Saratoga Springs, Whitehall, Crown Point, Ticonderoga, Port Henry, Westport, Essex, Keeseville, Plattsburgh, Mooer's Junction, N. Y., and Montreal, C. E.

A new four wire cable was recently laid across the Ohio river from Louisville, to connect with new wires, connecting that city with St. Louis, via Mitchell and Vincennes.

The Western Union Company have recently strung two new wires across the country between Pittsburgh and Steubenville. This shortens the distance to western points some thirty-five miles, and gives the Company another wire to Wheeling. A new wire will soon be strung between Wheeling and Columbus, Ohio.

The New York Board of Alderman has appointed a committee to consider the subject of erecting monuments to Robert Fulton and Prof. Morse.

The tariff to Southern stations is thirty per cent., over that of 1861.

VICKSBURG, June 7.—*To Editors New-York:*—The Vicksburg Herald sends greetings to you. Long Life to the Republic.

C. BULLERTON, Editor Vicksburg Herald.

J. J. Hubbell, manager of the People's Telegraph Office, at Hartford, has been removed for appropriating money collected of the subscribers to the news-room of the company, Hubbel claiming that the money was rightfully his.

The great fire in Saratoga, on the 18th instant, burned the Western Union Telegraph office. The United States Telegraph wires, which were fastened to Marvin Block were also burned.

THE SOUTH AMERICAN TELEGRAPH LINE.—Our Minister to Chili, Mr. Nelson, by instruction of the Government, has called the attention of the Chilian Government, to the telegraphic line which is to be built from Panama to the extremities of South America, and is designed to put the western coast of that continent in instantaneous communication with the rest of the world.

ELECTRICAL PHENOMENON.—While a body of two hundred men were drilling at West Point, a few days since, a black cloud, very low down, discharged itself of its electricity suddenly, seemingly through the attraction of the two hundred bright gun-barrels, and the shock distributed itself throughout the corps. Several of them were stunned, and a large proportion of the guns were knocked out of their owners' hands.

Mr. Lundy is a passenger on board the Asia, en route for Heart's Content, Newfoundland, to get all ready at that point for the landing of the cable.

MARRIED.

In Simcoe, C. W., on the 6th inst., at the residence of the bride's father, by the Rev. Peter Steinhoff, Mr. Walter Steinhoff, Director of the N. Y. District, to Miss Jennie, youngest daughter of John Allegro, Esq.

In Essex, Ct., on Monday 29th ult., at the residence of the bride's parents, by the Rev. Jas. A. Gallup, Mr. Ward Lewis, of Great Barrington, Mass., to Miss Isabel G. Williams, formerly operator in the American Co.'s office, Great Barrington.

DIED.

In Brooklyn, L. I., on the evening of 23d ult., of typhoid fever, John W. Fish, aged 87. Mr. Fish was one of the oldest Morse operators in the United States, and worked the National Co.'s line in this city for a long series of years, and was, at the time of his death, in the employ of the U. S. Company.

QUOTATIONS OF TELEGRAPH STOCK.

CORRECTED BY JOHN HORNER, CASHIER, AMERICAN TELEGRAPH OFFICE, NEW YORK.

Western Union, \$100 shares	83	Montreal, \$100 shares,	115 gold
American, " "	155	Nova Scotia, 20 "	17 10
Russian Extension, " "	31	Vt. & Boston, 50 "	25
Ill. and Miss., \$50 " "	par	Troy & Can. Junct 50 "	25
East India, " "	"	Maine, 50 "	71
United States, \$100 "	by the Company		85

AN INTERNATIONAL Telegraphic Convention was recently held in Paris at which there were twenty-six delegates, representing twenty-one European states. England was not represented. The subjects under discussion were composed of five sections and sixty-three articles, and touched upon all questions of International Telegraphy.

COLLINS' OVERLAND EXPEDITION.—The revenue cutter Shubrick arrived from Victoria with Colonel Bulkley, of the Russian International Telegraph, on the 19th of April. All the arrangements were made during his visit to British Columbia and Sitka for pushing forward the enterprise forthwith.

The *Alta California* says: Col. Bulkley took with him Henry P. Fisher, Surgeon of the party, and Messrs. Wm. J. Murray, John Jordon, James Sullivan and Alexander Campbell, Constructors, and Thomas Conlin, General Assistant. There is a corps of men already at Victoria, preparing for the work, consisting of Messrs. Edmund Conway, Assistant Superintendent; James W. Pitfield, Chief Operator; and A. McKee and Thomas D. Conway, Constructors. The following party remain in this city for the present, engaged on preliminary work: Wm. B. Hyde, Assistant (Civil) Engineer; S. R. Chappel, Chief Clerk; Messrs. Belinge, Lewis, Norton, Yates and Smith, of the Engineer Corps; Messrs. J. H. Walker and J. B. Chappel, Operators; Daniel Libby, Constructor, and Mr. Bush, Quartermaster.

The Superintendent of the State Telegraph, James Gamble, went with Colonel Bulkley, intending to stop at Victoria, and from thence to Bellingham Bay to finish up a short stretch of wire yet unbuilt between that place and New Westminister, on Fraser River, British Columbia. A part of Colonel Bulkley's corps will proceed to Fraser River and work back towards Bellingham Bay. In two or three weeks we may expect this gap to be filled, which will open up telegraphic communication between San Francisco and Fraser River. It might be remarked here that a large telegraph cable is on the way from England to be laid down across the Straits of Fuca, to connect Victoria with the main land line in Washington Territory. The cable which was purchased and shipped a year ago for this purpose was lost at sea, and hence the delay in finishing the communication with Victoria. The Expedition consists of some 1,500 men on land and several vessels along the coast. Telegraphic communication with New Westminister, British Columbia, was completed on April 25th.

A LORDLY FIREMAN.—The Duke of Sutherland has carried his fire pursuits to the extent of having telegraphic wires communicating with all the fire-engine stations in London, carried into his bedroom. Whenever the firemen are called, a telegram is sent off to the Duke, who sleeps with his professional costume ready to hand.

ANOTHER TRANSATLANTIC TELEGRAPH.—It is said that a company has been formed in Spain, with a large capital, for the purpose of carrying a telegraph across the Atlantic by a new route.

Among the passengers by the Cunard steamship Persia, which arrived here on the 20th of April, is Mr. P. McD. Collins, the projector of the Russo-American Telegraph scheme. Mr. Collins has succeeded in concluding the final convention with the Russian Government for the construction of the connecting link of the line through the Amoor, and is now on his way to Russian America for the purpose of setting on foot the commencement of operations through that country.

The Times London correspondent says: "The Russian Government has just contracted with Messrs. Collins and Sibley, two American gentlemen, for an electric telegraph to be laid from the mouth of the Amoor to California, via Behring's Straits. The line is to be opened on the 3d of April, 1870, the permission of the English and American governments having been already obtained for their respective territories, and every assistance promised by the three cabinets concerned. Of the \$10,000,000 required for this gigantic design, \$8,500,000, it is said have been subscribed by the Western Union Telegraph Company, the rest being covered by the contractors themselves. As yet, however, it is an untried experiment to lay down electric wires in such disagreeable vicinity to the North Pole, and that in a country inhabited by bears and uncured savages in promiscuous variety. Fancy suspending on wooden poles for a distance of some 7,000 miles. Fancy conveying all the requisites to the northeastern extremity of Siberia, and, when finished, leaving the wires exposed to the Winter snows and the no less injurious influence of the Summer thaws. In Southern Siberia, where the telegraph has already reached Kiachia, the wires are frequently incrusted with a covering of snow and ice several inches thick, and, as a rule, break or get otherwise out of order every Winter. For reasons not published the contractors have, however, preferred the ordinary mode of overground structure to any other that might have been devised, the only cable employed being reserved for the short distance between the East Cape and the Prince of Wales Cape. The line is intended to follow the western shore of the Pacific from the Amoor as far as Kamtschatka, and on the other side of the ocean will traverse long tracts of Russia and British America down to Vancouver Island, Oregon and San Francisco. A rough sketch of the pecuniary side of the matter will be not devoid of interest even at this early period: For interest and working expenses, £270,000 is believed to be a moderate estimate. Supposing then, the line to convey 200 telegrams of average continental length (twenty words) a day, the price could not be well less than £3 15s. to cover

the mere expenses of the company. Add to this the charges from London to Berlin, 6s. 6d.; from Berlin to the Russian frontier, 6s.; and thence to Kiachia, £1 6s. 6d., which will increase to £1 10s. on reaching the Amoor, and you have £5 17s. 6d. as the cost from London to the Behring Straits. From the eastern shores of the Pacific to New-York £2 17s. will have to be exacted, according to the ordinary American tariff, when the transmission of twenty words from the American to the English capital is found to entail an outlay of £8 14s. 6d. at the very least."

FAST TELEGRAPHING IN EUROPE.—It is officially announced that a telegraphic message was received in London from India which had been transmitted to England in the almost incredibly short time of eight hours and a half! This message, which was forwarded by the Indo-European Telegraph Company, was sent from Kurrachee, by way of the Persian Gulf, and after crossing nearly one-half of Asia and the whole of Europe, reached London in the time above-mentioned. We can beat this in America.

PROGRESS OF THE TELEGRAPH.—The Chinese Government has been informed by the Russian ambassador that the Russian portion of the telegraph to Pekin will be completed by the 1st of January, 1868.

Advices from Salt Lake, May 4th, say Mormons have taken stock to build a line of telegraph on this route, to extend to Prescott, the capital of Arizona, where it will connect with the line from California. There are forty-two towns and settlements on the route between Salt Lake and Colorado.

TELEGRAPH WIRES.—The Hudson Bay Company have imported 1,500 coils of wire the first installment of the gigantic line which is to start from New Westminister and span the Rocky Mountains eastward to the Atlantic.

DIXIE—AN INCIDENT OF WILSON'S RAID.—*The Selma Rebel* (before its capture) gives the following: "On Wednesday night last, Mr. Nettles, the chief operator here, was called to his instrument by some one up the Tennessee and Alabama road. The operator up the road desired information, and, from the character of his inquiries, Mr. Nettles was soon satisfied that a Yank had tapped the wire. He did not, however, give him any intimation of his discovery but let him talk. The stranger desired information as to the number of the forces and supplies at Coosa Bridge. Mr. Nettles told him he did not know, but that he had sent down to General Adams to inquire. Yank made a good many inquiries, but failing to get any information as to the location or strength of our force, came to the conclusion that Mr. Nettles 'smelt a mice,' and attempted no further concealment. In reply to Nettle's question he said his name was J. O. Jamison, an operator attached to the raid, and that he was up a tree with his instruments, near Monticello, in the deepest rain he ever saw. He said the expedition was commanded by General Wilson, who had under his command 2,500 men, and that they would be in Selma by Friday night. Permission being given he sent a dispatch to a young lady in Mobile, and another to Barney Hughes, telegrapher, telling him he loved him as much as before the war. After some other conversation, the Yank clambered down, mounted his horse and decamped."

The rebel ram Webb, Captain Reed, of Tacony notoriety, commanding, ran past the city of New-Orleans on the afternoon of the 24th of April. In coming down the Red River he attached the telegraph wire to the Webb, thus tearing down the line for many miles.

General Wright trailed a military telegraph after him, on his march from Burkesville to Danville, which, though for the most part unguarded, has not been interfered with by guerrillas. There is such a general understanding that the war is over, throughout the country, that it is considered safe to travel almost anywhere in the State without an escort.

There is now, May 8th, telegraphic communication between Macon, Ga., and Washington, a portion of the line extending through Georgia, South and North Carolina, where we have no troops. The same wires, which were but recently used by the rebels, are now employed in transmitting the President's proclamation offering rewards for the arrest of Jeff. Davis and others.

Telegraphic communication has been resumed between Cairo and Nashville, after a suspension of nearly a year on account of guerrilla operations.

The News, of San Antonio, Texas, announces that a telegraph was about to be opened between that city and Matamoras, and finally continued to Austin.

A THUNDERBOLT.—During the shower of Saturday evening (6th May), a glaring electrical meteor descended upon the stables of the Hoboken and Weehawken Horse Railroad Company, located on Union Hill, and the large edifice, including the office of the Company, was quickly in a flame. The entire establishment, with about \$1,000 worth of hay, was totally consumed. The horses, new cars, and office furniture were saved.

The New York Aldermen amended the Annual Appropriations by striking out the following words and figures under the head of "Fire Alarm Telegraph," viz.: Seven thousand five hundred dollars (\$7,500) and insert in lieu thereof the following, to wit: Three thousand seven hundred and fifty dollars (\$3,750.)

The Telegraph.

BY C. P. CRANCH.

I.

The world of the Past was an infant;
It knew not the speech of to-day,
When giants sit talking from mountain to sea,
And the cities are wizards, who say:
The kingdom of magic is ours;
We touch a small clicking machine,
And the lands of the East hear the lands of the West,
With never a bar between.

II.

We need not the lamp of Aladdin;
We envy not Solomon's ring;
The obedient lightning is safe and tame
As the carrier-pigeon's wing.
The girdle that Shakespeare's fairy
Would lay round the earth in an hour,
We hold in our hands, and day by day
We prove its miraculous power.

III.

Know ye the musical, mystic
Cords of the country's lyre,
Common as copy-book lines to a boy—
The wonderful telegraph wire?
Strings that seem drawn by Arachne,
So fine on the air they are spun;
Yet netting the state in fraternal embrace,
And binding the nation in one.

IV.

From Boston to distant Nevada—
From Texas to Labrador's beach,
They thrill with a fire that is born of a fire—
Thought flashed in electrical speech.
And the great world is dumb no longer,
Nor time nor space are a bar;
Minnesota is talking with Georgia and Maine—
There is no more a Near or a Far.

V.

Look anywhere out from your window,
Look anywhere up in the street,
Rumble along on the railroad track,
Go seek some shady retreat
By the road 'mid the blackberry bushes,
Where the wagons of hay pass by,
You will see those lines of music ruled
Along the blue of the sky.

VI.

These gossamer threads of the Summer,
These webs of ephemeral birth,
They are pulsing veins of the nation's life,
They are vital nerves of the earth.
Frail as aeolian harp-strings,
And swaying in wind and storm,
Yet they bind the world in a Union strong,
And give to the Age its form.

VII.

Though now four years we have battled
In strife and in agony sore,
The electrical cords of the Age shall thrill
With the message of "Peace once more."
They will teach the old lesson of ages,
Once taught by Galilee's shore,
All men are brothers—the earth is one—
There shall be War no more!—

[Evening Post.]

Wheatstone and Bain.

(Continued.)

Prof. Wheatstone states, that he described to many of his friends, how the principle of his telegraph could be applied to clocks, so as that the time of a single clock would be shown simultaneously in all the houses of a town. This assertion proves him to be a professor of a practical impossibility, and shows that he does not even yet understand much of the invention. To work the clocks of a very small town simultaneously, would require a source of electricity of such immense power, that instead of being able to transmit it through wires, it would make bars of metal hot in a few minutes.

In the electric clocks of Mr. Barwise and myself, this difficulty is got over by working the clocks in rotation.

Prof. Wheatstone took out a patent in January, 1840, in which he might have secured the inventions of the printing-telegraph and the electric clock, had he been acquainted with either previous to lodging his specification in July, 1840. Any body who knows the Professor will agree with me that, had he known of these inventions he would have secured them in his patent, the more especially as they are far more valuable than what he patented. The specification of that patent is open to public inspection, and does not contain the slightest allusion to either, which goes far to prove that his assertion of having a printing machine when I showed him mine, (in August), must have been entirely destitute of truth. The only features of resemblance between the patented electric telegraph of Mr. Wheatstone and my electric clock are, that they both contain electro magnets, and wheels and pinions, and so did the electric telegraph of Mr. Davy, patented in 1838.

Did your space permit, I could state many other circumstances connected with the inventions of which Prof. Wheatstone has endeavored to deprive me; but, in conclusion, will merely request insertion of the two following letters, which are corroborative of the first and most important part of my machine.

I remain, sir, your obedient and obliged humble servant,

ALEXANDER BAIN.

320 Oxford Street,
June 28, 1842.

To the Right Hon. the Lords Commissioners of the Admiralty:

MY LORDS: Mr. Alexander Bain called on me on the first August, 1840, for the purpose of learning whether I could introduce him to some one possessing capital to join him in bringing his inventions of the electro-magnetic printing telegraph into full operation, and I wrote to my late friend, Dr. Birkbeck, as more able than myself to promote Mr. Bain's wishes; and I wrote this note for the purpose of showing that, at the above date, Mr. Bain's inventions were in a complete state, and only delayed from want of the necessary capital. I have the honor to be,

Your Lordships' faithful servant,

PETER LAURIE.

Park Square,
June 20th, 1842.

To Mr. A. Bain:

SIR: In reply to your application, I beg leave to say that I most distinctly recollect your calling upon me in Fleet Street, in August, 1840, and consulting with me as to the best mode of proceeding with your inventions of an electric clock and an electric printing telegraph, both of which you explained to me. I also beg to state that I then recommended you to call upon Prof. Wheatstone, the inventor and patentee of the electric telegraph, as the most likely person to appreciate the merits of your inventions, as well as to further your views respecting them. Prof. Wheatstone was at that time unknown to you, but at my recommendation you waited upon him, and submitted your plans to his inspection, and I only regret that I should have been the means of introducing you to a gentleman who should so far have forgotten what is due to real merit, as to attempt to dispute with you the two important inventions of which you are unquestionably the author. To these facts I am quite ready to speak at any time and place that your occasions may require, and remain

Yours very faithfully,

B. BADDELEY.

20 Alfred Street, Islington,
June 8th, 1842.

(To be Continued.)

AN ELECTRIC DETECTIVE.—An ingenious contrivance has been invented by a Mr. Adolphe Baab, to prevent robberies from iron safes or other depositories of property. It consists of an electrical apparatus which, by the ordinary system of telegraphic street wires, can be placed in communication with the nearest public station, and which, on the slightest attempt to tamper with any part of the safe, will sound an alarm, and not only inform the police that a robbery is in progress, but acquaint them by means of a number with the precise safe that is being attacked.—*Foreign Paper.*

The Collins Overland Telegraph Expedition.

[CORRESPONDENCE OF THE TELEGRAPHER.]

SAN FRANCISCO, May 15th, 1865.

The remaining members of the Russian Telegraphic Expedition, from the Atlantic States, left New-York, by the steamer Ariel, on the 3d of April, your correspondent being among the number. We arrived at Aspinwall April 18th, having had an exceedingly pleasant passage, as far as weather was concerned. I cannot, however, speak in equal terms of praise respecting the accommodations, the food, and the general management of things on board the steamer. It would be useless to enter into particulars, as the total disregard of the comfort and safety of passengers on this line has become a matter of public notoriety.

In three hours after landing at Aspinwall we had made the transit of the Isthmus and reached the wharf at Panama. The railroad connecting these two points is chiefly remarkable for its marvelous crookedness, which may be safely said to exceed anything of the kind in the world or anywhere else. In other respects, however, it is a first-class road, being built with lignum-vitæ cross-ties and ballasted with broken stone. All the bridges are of iron and of the most approved pattern. The one which spans the Chagres River is a particularly fine specimen of engineering. The telegraph-posts along this route are of a somewhat novel construction, being composed of cement, moulded around a slender scantling of wood three or four inches in diameter. The latter is set in the ground, and a wooden mould, consisting of staves and hoops, somewhat like an upright churn, is placed around it, filled with cement and allowed to dry. The mould is then taken apart and removed, leaving the post ready for the insulator and wire. These posts are about eighteen feet in height, one foot in diameter at the base and six inches at the top. They are used throughout the entire line, a distance, by the railroad, of 47 miles.

While at Panama I had the pleasure of meeting Messrs. Stanley McNider and Thos. P. Scully, who are employed in the railroad and telegraph office at that place. Their numerous friends among the fraternity at the north will be glad to learn that both are looking "first-rate," and apparently are very pleasantly situated. I hereby take occasion to express my obligations to "Mac" for favors extended during my brief stay at Panama.

Our voyage from this point to San Francisco on the magnificent steamer "Constitution," was most delightful. We were favored with the finest of weather and the smoothest of seas, and nothing was left undone by the officers of the ship to promote our comfort and enjoyment. A more striking contrast to the management of affairs on the Atlantic side could scarcely be imagined.

We arrived at San Francisco just two weeks after leaving Panama. The remainder of our party who preceded us, leaving New-York in the "Golden Rule," on the 21st of March, had but just arrived, having been detained several days in the "transit." Among these were Mr. Kennicott, of Chicago, Mr. Rothrock, of Pennsylvania, and several other naturalists who are to accompany the expedition.

On our arrival here we found Colonel Bulkley and party busily engaged in preparing for the departure of the expedition for the north, which will take place in a short time.

* * * * *

The California State Telegraph Company have quite an extensive network of lines throughout this State and Nevada. They also have a line running northward through Oregon and Washington territories, which has recently been extended to New-Westminster, British Columbia, where it will connect with the Collins Overland Line. A new line is also to be built immediately from Los Angelos, Cal., through Arizona, via the Colorado river to Salt Lake City, affording much needed telegraphic facilities to the rapidly developing mining districts in that region.

One of the wires of this Company passes over the Sierra Nevada range, at an elevation of 8,000 feet above the level of the sea, which is, probably, the greatest height yet attained by a telegraph line in any part of the world.

Communication between here and the East by telegraph, is an illustration of the well known proverb that "doubtful things are mighty on-sartin!" The Overland line is "out of order" about three-fourths of the time, being either "interrupted by lightning between here and Salt Lake!" or else "down somewhere east of Salt Lake," if we may believe the official bulletins of the Agent. Malicious and evil-minded persons trace some remarkable coincidences between the ups and downs of this wire and similar fluctuations on the part of gold. Of course, being a member of the profession, I ascribe it to the "pesky Injuns." Possibly, if a competing line were established, and a lively "opposition" inaugurated, such as you have at the East, the "Overland" would work with greater regularity on account of the friendly attentions of the red-skins and the "Atmospheric" being divided between two lines, instead of being concentrated upon one, as at present.

I understand that a large "Overland" project is under way in Montana territory embracing a road and telegraph line incorporated under the title of the "Missouri River and Rocky Mountain Wagon Road and Telegraph Company." This concern intend to construct, as soon as possible, a telegraph line from Fort Laramie to the western boundary of Montana, connecting with the Pacific telegraph at the former point.

A fire alarm telegraph has just gone into operation in San Francisco, having been several months in process of construction. It was built by Mr. J. F. Kennard & Co. and is similar to that in use in Boston, Philadelphia, Washington and other American cities. It has five "signal" and five "alarm" circuits, sixty signal boxes, and comprises 37 miles of wire. The batteries and apparatus were manufactured in Boston, and the Superintendent is Mr. Chas. A. Stearns, who formerly held a similar position in that city.

While at Panama I learned that a proposition is on foot to construct a line of telegraph from that place along the Pacific coast to Valparaiso, South America. As the Chilians are the most progressive and enterprising people in South America I should not be surprised at the speedy accomplishment of the undertaking.

I will furnish you with additional particulars as soon as our expedition is thoroughly organized and ready to leave for its destined field of operations.

ELECTRON.

GEO. A. STEARNS' PARATONNERRE,
Patented June 21st, 1864.

This Machine is now for the first time offered to the Public. It has been thoroughly tested and found to answer its purpose most admirably.

As a Protector against Lightning, it has no equal, being so delicately constructed that not a click will be heard on the relay during the most violent thunder-storm.

While accomplishing this most desirable result, it in no way interferes with the working of the line. Telegraph Superintendents should at least give it a trial.

A modified form much cheaper will be found very useful and efficient for fire-alarms, and also to those telegraphers who do not care for perfection—this latter form being far superior to any other ever offered to the public.

All Communications should be addressed to

E. VALENTINE.

Milwaukee, W's.

DISTRICT BY-LAWS.

The N. Y. DISTRICT have 1000 copies of District By-Laws printed in pamphlet form, with blank spaces for filling in time, dates and amounts. Price \$3.50 per 100. These By-Laws were printed upon the assurance of several Districts of their desire to purchase.

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ONE copy of THE TELEGRAPHER will be furnished GRATIS for ONE YEAR to any person who will send us the price for SIX YEARLY subscriptions of persons not members of the Union.

The columns of THE TELEGRAPHER offer superior inducements to ADVERTISERS. It is the best and cheapest medium for advertising telegraph materials in the country. Our rates for advertising are FIFTEEN CENTS per Brevier line, each insertion, payable in ADVANCE. Thirteen words average a line. The circulation of THE TELEGRAPHER has reached 1200 copies, and is increasing.

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Persons desiring to purchase goods in New York City will do well to entrust their commissions to the Editor of THE TELEGRAPHER.

We are only prepared at present to execute commissions in Printing, Blank-Books, Stationery, and Steinway's Pianos, also Wood Engravings and Lithography. Terms reasonable.

Address the EDITOR of THE TELEGRAPHER,

Post Office Box 3,393, New York City.

NOTICE TO CORRESPONDENTS.

All communications to, or articles for insertion in, *The Telegrapher*, must be addressed to the Editor, P. O. Box 3,393, New York.

No notice will be taken of anonymous communications: the name and address of the writer must always accompany each article or communication.

Correspondents sending articles for insertion must write briefly, and on but one page of each half sheet of paper.

THE TELEGRAPHER,

Devoted to the Interests of the National Telegraphic Union and to Telegraphers and Telegraphy.

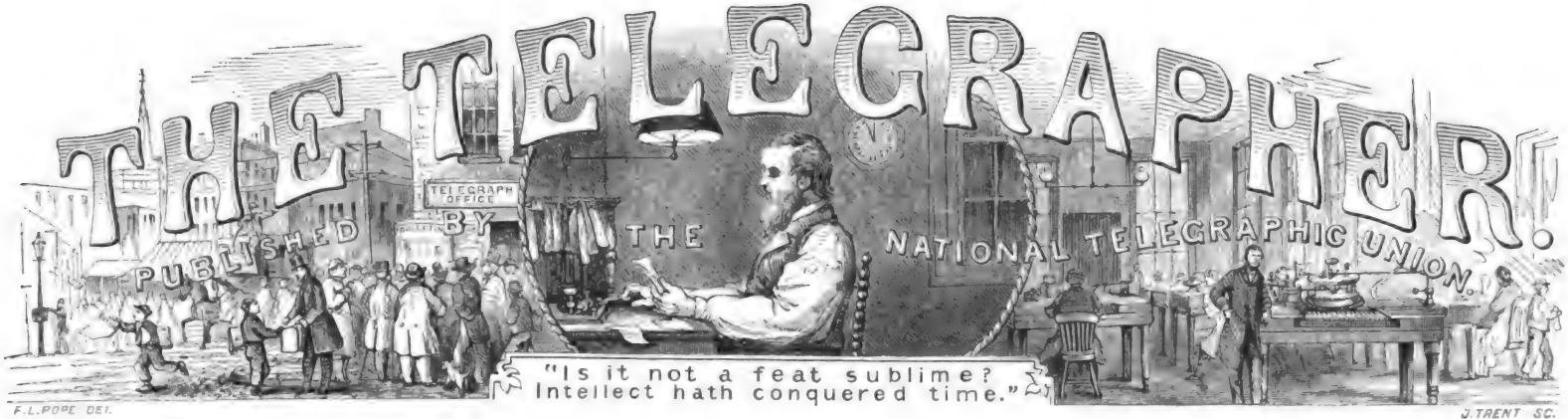
It will contain, besides all matters pertaining to the Union, everything of Telegraphic interest to Telegraphers. Correspondence, Extracts from Works on Telegraphy; Articles upon Electricity and Magnetism; Statistics; Improvements in Telegraphy, Telegraph Instruments and Materials; Promotions, Removals, Resignations, Marriages and Deaths of Telegraphers.

Subscriptions will be received for six months, or one year, at Two Dollars per annum, payable in advance. Any person sending us the yearly subscription of six persons, not members of the Union, will be furnished a copy for one year. Single copies, 17 cents.

A number of Advertisements will be received, at fifteen cents per Brevier line each insertion. Terms CASH, in ADVANCE.

Number Eleven will be issued on Monday, July 31st, 1865.

For particulars, address the Editor, P. O. Box 3,393, New-York.



Vol. I.

New York, Monday, July 31, 1865.

No. 11.

THE NORTH ATLANTIC TELEGRAPH.

(Continued.)

"Leaving Labrador on the 17th September, I returned to Greenland for the purpose of completing such soundings as the drift ice had previously compelled me to leave undone.

"The season was very remarkable for the great quantity of drift ice which encumbered the shore, and had hitherto prevented vessels from approaching Julianshaab; in fact, so much ice had not been known for nearly 30 years.

"This coast, I may remark, is usually quite free from ice by September.

"Following up my inquiries, I learned that the climate is not nearly so severe as is generally supposed, the fiords are only partially frozen over in winter; a few cows, goats, and poultry are reared; and although the summers are cold, turnips, spinach, lettuce, and radishes grow in the open air.

"I was informed that the large fiord of Tessermiut, which lies midway between Julianshaab and Cape Farewell, was the most likely place to afford security for a cable; that icebergs never came into it, and that there would be found ample depth of water from it out to sea; also that there is safe anchorage in a spacious bay near its mouth as well as high up in the fiord.

"On 3d October I put to sea, intending to sound into Tessermiut Fiord should the ice permit; but it was with difficulty we got out, for a S.E. wind had brought up much more ice from Cape Farewell, and prevented our approaching within 40 miles of Tessermiut or the adjoining coast; and the ship sustained considerable damage from unavoidable collisions with the ice before she got clear out to sea.

"It is well known that a current from the North Atlantic Ocean bears along with it all this ice round Cape Farewell, and up the west coast of Greenland for several hundred miles. It carries the drift-ice for the most part along the outer islands, and it is only when there is a strong wind blowing in from the sea, that the ice comes in between the islands and enters the fiords; it is almost exclusively low or flat ice which thus drifts in, the larger masses and icebergs, which draw more water, nearly always keep themselves in the main stream along the outer islands.

"It is evident, that were a cable brought in from the deep water existing outside and between these islands, and carried sufficiently far up a deep fiord, its security from icebergs would be insured; and that to protect the mere shore-end from the ordinary flat ice would be a matter of no great difficulty.

"Since my return to England I have received a letter from the Resident Inspector of South Greenland the well known Dr. Rink, whose writings on Greenland have added so largely to our knowledge of the physical condition of that great arctic continent. The opinion of such a man deserves serious attention, since it is scarcely possible to quote a higher authority upon the point in question. I therefore do so almost in his own words:

"'I have thought much,' he writes, 'over the proposed route for the North Atlantic Telegraph; at first I doubted the possibility of accomplishing it, but now I am of a contrary opinion. You can lay down the cable from Iceland round Cape Farewell into some fiord upon the south-west coast, where ice cannot ground upon it, or touch it except for a few fathoms out from the shore, and this last part may be easily protected. But to carry the wire across the interior of Greenland, as I have heard of, would be impracticable.' This letter was written in Greenland, before either the 'Bulldog' or 'Fox' had arrived there, and experience has since shown the necessity for acting in accordance with the suggestion of Dr. Rink. The length of cable required to unite Iceland with West Greenland will be about 800 miles.

"Finding that nothing more could be done upon the Greenland coast, I commenced a line of soundings towards Rockall, but a succession of tremendous storms and want of fuel prevented the completion of this service. One of the few casts obtained deserves particular mention; the depth was first ascertained to be

1260 fathoms: then a sounding machine was lowered to obtain a specimen of the bottom, and about fifty fathoms of line more than the depth required was payed overboard, to insure its being down. On hauling it in, several small star-fishes were found adhering to that part of the line which had lain upon the bottom! The nearest land at the time was Iceland, and it was 250 miles distant. I simply mention this interesting fact, which I witnessed, leaving it to be enlarged upon by Dr. Wallich, the able naturalist of the Expedition, who is still employed by the Admiralty in the microscopic examination of our specimens of the sea-bottom. The result of his investigations (which will be published hereafter) may be of great importance to Marine Telegraphy, proving, as it will do, the existence of animal life at very great depths.

"We are aware that the coating of a Mediterranean cable was attacked by minute creatures allied to the ordinary Teredo, at the depth of sixty or seventy fathoms, and should it be found that similar boring animals exist in great depths, it will become imperative to protect the insulation of the wire against their ravages; but time does not admit of a digression from the object of this paper, which is simply to lay before you my experience and opinion with regard to the physical aspect of the proposed route; it may not, however, be out of place to mention, that the great pressure exerted at depths approaching to 2,000 fathoms is sufficient to squeeze the tar freely out of rope: could we recover a cable from these depths, we would find the tar similarly expressed from its canvas wrappings. If the tar used were of a sufficiently viscid description to harden and remain coated upon the wrappings, it would probably afford quite a sufficient protection against these destructive creatures.

"Once laid in deep water, the North Atlantic Cable will probably be more secure and more durable than any other; as it will lie at the bottom of a sea where the temperature is unusually low, and where animal life is proportionately rare.

"If, during the coming summer, a final selection and survey of a landing place in Greenland be made, all that will remain to complete the entire route will be a landing position in Labrador; and that a cable can be safely landed upon some part of this coast, if not in Hamilton Inlet, it is hardly possible to doubt.

"Judging them from my own experience, and from the facts which the voyage of the 'Bulldog' has brought to light,—many of which are supported by the most reliable local authorities,—I am of opinion that with regard to the practicability of laying a North Atlantic cable, there are no grounds for serious misgivings; on the contrary, nearly all the information which has so far been ascertained is of a kind favorable to the accomplishment of the undertaking.

"That there is usually impenetrable ice upon the south-west coast of Greenland for eight months out of twelve,—(*i.e.* from January until September)—we are well aware; and hence originates the chief difficulty of the route. It is obvious that the Greenland cables cannot possibly be laid down whilst this ice remains upon the coast; but in ordinary seasons it does not clear away until autumn is far advanced, and stormy weather becomes frequent. This difficulty, I apprehend, however, is not an insuperable or extraordinary one, since it is common to all similar operations at sea, requiring for their accomplishment a like period of four or five consecutive days.

"I have assumed that the ice ceases to obstruct the south-west shore of Greenland about the middle of September; but we can no more predict its movements than we can foretell the temperatures of the seasons, and the winds by which those movements are governed.

"Exceptional seasons occur when it would be imprudent to attempt laying a Greenland cable; also rare seasons when it could be laid as early as July: again, there are seasons when the ice-drifts are detached from each other so that vessels watching their opportunity may freely pass, into harbor, or out to sea, during the summer months.

"In order to meet these ever-varying circumstances, it is the more necessary that

the utmost caution be observed in all matters connected with the laying down of the Greenland lengths of the great cable; that the most suitable steamers be selected, and the highest engineering and nautical skill be employed.

SURVEY OF THE LANDING PLACES FOR THE PROPOSED CABLES; REPORTED BY ALLEN YOUNG, ESQ., COMMANDER OF THE STEAM YACHT "FOX" EXPEDITION; WITH REMARKS BY SIR CHARLES BRIGHT.

"I have been requested by the promoters of the North Atlantic Telegraph to present to the Royal Geographical Society, a synopsis of the report which has been handed to me by Captain Allen Young, upon his recent voyage in the steam yacht 'Fox,' and his careful and elaborate survey of the proposed telegraphic route between Europe and America, by way of the Feroes, Iceland and Greenland. I will commence with the departure of the 'Fox' from Southampton, on the 19th June, for the Feroes, where she arrived on the 3d of August.

"FEROE ISLANDS.—This most interesting group of isles, the capital of which is Thorshaven, lies some 200 miles north of Scotland, and is under the authority of the Danish crown. I will proceed at once to quote some interesting extracts from Captain Young's report. He says:

"We were naturally anxious to reach the spot at which our work was to commence, and to ascertain the first foreign station at which the telegraph cable was to be landed. We were glad to make the Feroe Islands, distant 50 miles, on the evening of the 2d August, the remarkable clearness of the atmosphere and the height of the land, making our distance from it apparently far less than we were by our observations. When 46 miles E.S.E. from Naalsoe we obtained soundings in 102 fathoms, sand and shells. We here passed through many patches of discolored water of a reddish hue, caused probably by minute animalcules on the surface, specimens of which, brought up by the towing net, being preserved. Specimens of water, both on the surface and at various depths, were frequently obtained during our voyage and preserved, the temperature and specific gravity being registered in the meteorological journal.

"On the morning of the 3d the land was obscured by clouds and mist, which, as the sun rose, gradually dispersed, and enabled us to obtain views of the land, and also to fix our positions by Born's chart to commence a line of soundings into the north point of Naalsoe; the depths were 36 to 26 fathoms, with a bottom of sand and shell."

"On rounding the north part of Naalsoe we took a fisherman on board as pilot, and at 10:30 anchored in Thorshaven, and immediately commenced an inquiry and examination of the locality, and testing the accuracy of all the charts and maps in our possession.

"The results were as follows: Thorshaven and bay is protected by Naalsoe, and is land-locked, excepting on two points to S.E., and on one point to N.E. A swell sets in to the inner harbor with S.E. gales, but this cannot be to any very great extent, from the fact that vessels lie at their moorings throughout the winter. The bay has good anchorage, varying in depth from 25 to 8 fathoms, bottom of sand, gravel and shells, with a few patches of hard ground. Vessels usually moor in the two inner harbors or creeks, the northern being most frequented for the facility it offers for loading and discharging cargoes. Either of the inner harbors would do very well to land the telegraph wires, but from the many vessels frequenting the port it appeared desirable to select another place, for even were the cable to be buoyed, the risk from the ships' anchors would be considerable, on account of the want of space—but half a mile southward of Thorshaven is a small cove called Sandygerde, where the cable could be landed in safety and clear of ships' anchors. This cove is 1½ cable's length across, and about the same depth, and shoals gradually to a sandy beach; it is intersected at the head by a water-course and mill, the land sloping gradually up an extensive valley to the interior. As many additional soundings were obtained across the fiord as our time would admit, proving that although the channel is uneven there is nothing to prevent bringing a cable in from sea. From the most reliable information from pilots, and our own observations, the stream on the flood never exceeds four knots on the strongest spring tides, whilst on the ebb it is much weaker, and at times scarcely perceptible. It is high water at full and change at four o'clock, the flood runs to the southward. The gulf stream appears to sweep round these islands from left to right, or direct as the hands of a watch, and therefore in sailing from Thorshaven for the northward, by starting with the first of the flood and passing to the southward of Stromoe and through Hestoe, and Westmanshaven fiord, you can carry a nine hours favorable tide. The rise of tide at Thorshaven does not exceed six feet.

"We left Thorshaven at 1 P.M., passing through Hestoe and Westmanshaven fiords, and anchored in Westmanshaven in the evening. The lofty hills on either hand rise to the height of 1,500 to 2,000 feet, with vast basaltic caverns and columns in the cliffs. As I had heard that Sir Leopold McClintock had already examined this port, I did not deem it necessary to delay the ship for that purpose. The fiord appears clean and clear, with deep water close into either shore. I was informed that there is seventy fathoms water in the middle, a little north of Welbe-

stad, and the stream in strongest spring tides runs six knots through the fiord. The rise of water is much influenced by the winds outside—it has reached ten feet at spring tides, and has been known as low as four, but the mean rise appears to be from six to eight feet. Westmanshaven is said to be the best harbor in the islands; it is completely landlocked, with a bar, probably formed of the debris washed down from the surrounding hills, and accumulated by the action of the streams and eddies in the fiord. I fear the current in this fiord would be disadvantageous.

"We left Westmanshaven on the evening of August 5th, and, after weathering the northern extremity of Stromoe entered the sound between Stromoe and Osteroe, and anchored at Haldervig at 11:30 P.M. on the same night. An examination of the port and estuary of the sound was commenced. The results of these observations, which occupied two days, were, that little or no stream is found in the sound, that Haldervig has good anchorage, and is perfectly landlocked; the deepest water is thirty-four fathoms, bottom black mud and sand, but that a sand-bar exists between Eide Point and Stromoe, over which there are 8½ fathoms in the deepest part; and as in northerly gales the sea is said to break upon it, I consider that the cable would require a strong shore-end to ensure its safety in crossing this place. This bar lies rather within the entrance and narrowest neck of the sound." In the summary, Captain Young states: 'At Haldervig we surveyed harbor and fiord, and found all satisfactory, and I think that place to be well adapted for the reception of the cable. We found but little current, and the cable can be taken in, in a tolerable depth of water, into a perfectly land-locked position.'

"On approaching the coast of Iceland we got occasional soundings towards Ostre Horn, under which we were obliged to anchor in a dense fog, after getting inside an extensive and dangerous reef of rocks, called by the Icelanders the Hartinger and Bortinger. These reefs lie two miles east (true) off this cape. They do not appear on the Danish surveys, but I afterwards found them as a single rock upon a French chart.

"On the morning of August 12, the fog having lifted, we weighed under steam, and got into a position to carry a line of soundings into Beru fiord, between the islands of Papey and Kogar Point—these soundings average about thirty fathoms, principally sand and shells. We anchored off Djupivogr factory the same day, and it being Sunday, we ceased operations during the afternoon. The weather that day was the finest we had had since we left England, and the evening was truly summer-like. During the following five days, and when not prevented by the prevalent rain and fogs, we proceeded with the examination of the fiord, and finding it would not be advisable to carry a cable into the small harbor of Djupivogr, on account of many rocks in its vicinity and its being the anchorage of the small vessels frequenting the coast, we sought for a more suitable landing place higher up the fiord, and succeeded in finding an excellent bay, called Gautavik, on the north shore, five miles from the entrance. A depth of near thirty fathoms can be carried in from sea to within a quarter of a mile of the shore, while the bay itself afforded good protection and anchorage for any large ships that might be employed in the undertaking.

"High water at Djupivogr at three o'clock, full and change, rise six feet. The tide has been known to rise six and a half feet before the coming of easterly gales; about the same time flood outside runs S.S.W. (true), ebb N.N.E., between Papey Island and the main. The strongest known stream has four knots, but the average in ordinary spring tides is not more than two and a half knots.

"In 1860 drift ice appeared off the coast and entered the fiord, and again (though in very small quantities) in 1859-60. This ice, called here Greenland ice, is the ordinary washed and decayed floe-ice, and comes from the N.W. No icebergs have ever been seen on the coast. The drift-ice appears with northerly and departs with southerly winds, and less of it comes into Beru fiord than any other fiord on the east coast of Iceland; the residents accounting for this fact by Beru fiord having a S. W. direction, and is consequently protected by the more northerly and protecting copes which shut the ice off, while the local tides keep it drifting up and down the coast. The fiord itself never freezes, but thin ice has been known to cover the harbor off the Factory for a day or two during the winter.

"A tolerably complete survey of the fiord from the entrances to Gautavik was completed, but a further examination would be advisable outside, to ascertain the proper channel in which to lay the cable. The greatest difficulties experienced on the coast by the seamen, are from the prevalent fogs during the summer months, and with easterly winds, and this would render it advisable to start from this coast towards Faroe, in laying the cable, because making a good land fall here would be attended with considerable uncertainty." Finally, as to the practicability of Beru fiord, Captain Young says, 'There will be no difficulties from the sea, ice, or otherwise, and the only obstacles will be from fogs and thick weather, but which may be overcome by selecting proper seasons, and taking precautions in landing or embarking the telegraph cable.'

"Captain Young sailed from Beru fiord on the 17th day of August, and arrived at Reikiavik, the capital of Iceland, on the 21st day of August, and after making enquiries as to the coasts, he says, 'I then determined to examine Hval fiord, as from its situation it appeared to have the advantage over any place in Faxe Bay,

and on the 20th I proceeded up that fiord, sounding it as far as 'Maria Havn,' a small harbor and salmon river on the south shore, 7 miles from the entrance of the fiord. The least depth of water in the channel of the fiord is 14 fathoms, with deeper water both outside and in, the general depth being 18 to 20 fathoms soft mud. The cable could be taken into Maria Havn through soft mud, on a sandy beach in a land-locked position. Hval fiord is protected from a heavy sea breaking into it by the shoal of 'Vestrhram' and 'Sydihraun' in Faxe Bay, and on which there is less water than in the shoalest part of the channel of the fiord. The bays in the fiord are sometimes covered with thin ice, but the fiord itself never freezes, and with reference to drift-ice on this part of the coast, I cannot do better than quote the words of Sir Leopold M'Clintock. 'Faxe Bay never freezes over, and I can find no record of drift-ice within, since 1863. Merchant vessels come and go throughout the winter.'

"The 'Fox' left Reikiavik, August 31st, and after a very rough passage, arrived at Frederickshaab, October 2d. Captain Young remained there to make some necessary repairs, and finally arrived at Julianshaab on the 22d October. He then reports: 'Having made all inquiries about Igalko or Julianshaab fiord, I deemed it advisable at once to commence a survey of this beautiful arm of the sea, and acting upon the opinion of Colonel Shaffner, that were this fiord found practicable, the electric circuit from Reikiavik would not be too extended.'

"We first sounded up to the head of the fiord, which gave an opportunity for our landing a travelling party under command of Dr. Rae, to examine the inland ice and nature of the country. A party also went to the Old Nordisker Ruins, at Igalko. Returning with the 'Fox' to Julianshaab, October 27th, Captain Young then surveyed the estuary of the fiord, and from the soundings obtained, says, 'I am of a decided opinion that a depth of not less than 150 to 160 fathoms can be carried from the middle of the fiord abreast the settlement, out to sea, with a general muddy bottom.'

"*This depth of water will effectually preclude injury to the cable from the largest icebergs ever seen upon the coast.* Although many bergs lay along the coast, we saw none aground in this valley of the fiord, nor according to information obtained from the residents, have they been seen grounded in that channel.' Captain Young then proceeds to say—'This report and my previous letters will show that my decided opinion (so far as we have been upon that route) is favorable to the practicability of the undertaking, and that Julianshaab will, under all circumstances, be well adapted for the reception of the cable. With regard to the operation of laying the cable, I consider that no apprehension may be felt on that point, for from the sudden disappearance which we witnessed of the ice from the coast, and from the ice usually dispersing from the south-east shores of Greenland in the autumnal months, opportunities will always occur when a ship having the cable on board and lying in readiness in Julianshaab, may depend upon having a period of clear and open sea. The cable once laid, no drift ice can in any way injure it, if the proper precautions are taken in securing the shore end.'

(To be Continued)

THE ATLANTIC TELEGRAPH.

(From the London Times, June 20.)

At length all the preparations connected with the final departure of this great telegraphic expedition are completed. On Wednesday the Amethyst left the telegraph works with the last length of 245 miles of cable on board, and on Saturday the operation of coiling this in was begun. This work will probably last till the 22d inst., when the Great Eastern will have in her as nearly as possible 7,000 tons of cable, or, including the iron tanks which contain it and the water in which it is sunk, about 9,000 tons in all. In addition to this she has already 7,000 tons of coal on board, and 1,500 tons more still to take in. This additional weight, however, will not be added until she leaves the Medway, which she will do on the morning of the 24th, for the Nore, when the rest of the coals and special stores will be put on board, and these will bring her mean draught down to 32½ feet. Her total weight, including engines, will then be rather over 21,000 tons, a stupendous mass for any ship to carry, but well within the capacity of the Great Eastern, of which the measurement tonnage is 24,000 tons. Before the following spring tides set in, about the 6th or 7th of July, the Great Eastern will start for Valentia. There she is expected to arrive about the 9th or 10th, and there she will be met by the two ships of war appointed to convoy her—the Terrible and the Sphynx. Both these vessels are being fitted with the best apparatus for deep sea soundings, with buoys and means for buoying the end of the cable, if ever it should become necessary; and with Bollen's night-light naval signals, with which the Great Eastern is likewise to be supplied. To avoid all chance of accident, the big ship will not approach the Irish coast nearer than 20 or 25 miles, and her stay off Valentia will be limited to the time occupied in making a splice with the massive shore end, which for a length of 25 miles from the coast will be laid previous to her arrival. This monstrous shore end, which is the heaviest and strongest piece of cable ever made, will be dispatched in a few days, and be laid from the head of a sheltered inlet near Cahirciveen out to the distance we have stated where the end will be buoyed and watched by the ships of war till the Great Eastern herself comes up. Some idea of the strength and solidity of this great end may be guessed by the fact that its weight per mile is very little short of half the weight of an ordinary railway metal. For the shore end at Newfoundland only three miles are required, and this short length will be sent in the Great Eastern. When once the splice is made from the great cable ship to the English shore end—an operation which will consume about five hours—the work of lay-

ing the cable will instantly commence. By that time every mile of the cable in the three tanks will have been joined up, and at a stated hour, morning and evening, a series of signals will be sent through the cable to the land at Valentia, and thence to London, giving the latitude and longitude of the great ship, the state of the weather, and the number of miles paid out. The cable will be first taken out from the forward tank, next from that amidships, and lastly from that astern; and if all goes well the vessel should arrive with nearly five hundred miles of cable in her still unused, an excess which is most wisely allowed in case of accident. We may add that since the laying out apparatus has been in work its action has been faultless. Messrs. Canning, Clifford, and Temple have absolute charge of all the details connected with the submergence, Mr. De Santy is in charge of the electrical condition of the cable for the makers, Mr. Varley goes to represent the Atlantic Company, and Professor Thompson as scientific adviser and referee. These gentlemen, however, are only the chiefs of the various large departmental staffs, which will be on board.

With regard to the process of laying, it is hoped the Great Eastern may be kept throughout the whole voyage at a uniform speed of six knots per hour, faster than which, it would not be safe, as a rule, to run out the cable. At less speed than this however, the big ship would fail of steerage way, and with a beam wind would certainly go to leeward without some counteracting influence. This influence, will be afforded, if necessary, by the paddle engines, which are to be disconnected, and the efforts of one wheel at either side would be quite sufficient to over-balance the effects of anything but a very violent storm. This latter risk is now literally all that has to be feared. Everything else which human foresight can suggest, either in cable or ships, everything which long experience or scientific progress can devise, has been provided, and the success or failure of this vast expedition is now only a question of weather. On this only doubtful point, therefore, it is gratifying to know that Captain Anderson is sanguine of all going well. In his experience of many years and hundreds of voyages backward and forward in command of the Cunard liners over this very track of the Atlantic, he states that in the early part of July it never blows long or strong, and that during that time he has never even heard of any bad weather which could for a moment affect a vessel like the Great Eastern. If these anticipations should prove correct—and there are none better capable of forming them than Captain Anderson—and if all goes well, both as to course and rate of steaming, telegraphic communication with the United States may be looked for at the latest about the 20th or 21st of next month. Yet, in this estimate of events, it must not be forgotten that in the last memorable expedition in the Agamemnon, midsummer was fixed on as the time when a storm in the Atlantic was almost impossible, and the records of the meteorological departments, both here and in America, certainly justified such an expectation, and they showed that for fifty years no storm had taken place at that time. Yet it was precisely on the 21st of June that the hurricane with which the Agamemnon and Niagara had been battling for some days was at its height, and those on board the ill starred Agamemnon, at least, knew not from hour to hour which was to be their last. Most earnestly is it to be wished that on this great occasion the calculation of averages, if not more just, may prove at least more fortunate. As far as regards the cable itself there is absolutely nothing to be desired.

The Malta and Alexandria wire was an enormous improvement on that by means of which it was hoped to connect England with the United States. That laid along the Persian Gulf is again a great improvement on the Malta and Alexandria; while this which is to cross the Atlantic is a still more marked improvement on them all. So exquisitely delicate are the tests that a minute flaw even in one of the four coatings of gutta percha has been detected, its place defined almost to a yard or so, and the length in which it occurred at once cut out. It is a singular but significant fact that almost all the accidents and stoppages which have occurred to submarine cables have arisen from those which have been laid in shallow water. A deep-sea line, once well laid, seldom or never gives future trouble, except, of course, in those few rare cases where the line has to be taken over ocean depths known to be liable to volcanic disturbances. Thus the deep-sea portions of the Malta and Alexandria line from Malta to Tripoli, have, it is stated, never given an hour's uneasiness, while the shallow sections from Bengazi, &c., to Alexandria, are constantly getting out of repair. As a set off to this, however, it is only fair to state that shallow cables may be repaired with as much facility as they seem to break down; while, on the other hand, the first fault of a deep-sea line, is, as a rule, its last.

At the bottom of the Atlantic, it is needless to say, no volcanic disturbances are apprehended. Along the route on which the cable is to be laid the depths vary from 1,500 to 2,500 fathoms. The dangerous part of this course has hitherto been supposed to be the sudden dip or bank which occurs about a hundred miles off the west coast of Ireland, and where the water was supposed to deepen, in the course of a few miles, from 300 fathoms to nearly 2,000. Such a rapid descent has naturally been regarded with alarm by telegraphic engineers, and the alarm has led to a most careful sounding survey of the whole of the supposed bank by Captain Dayman, acting under the instructions of the Admiralty. The result of this shows that the supposed precipitous bank, or submarine cliff, is a gradual slope of

nearly sixty miles. Over this long slope the difference between its greatest height and greatest depth is only 8,760 feet, so that the average incline is, in round numbers, about 145 feet per mile. A good gradient on a railway is now generally considered to be 1 in 100 feet, or about 53 in a mile, so that the incline on this supposed bank is only about three times that of an ordinary railway. In fact, as far as soundings can demonstrate anything, there are few slopes in the bed of the Atlantic as steep as that of Holborn Hill. In no part is the bottom rocky, and with the exception of a few miles which are shingly, only ooze, mud or sand is to be found.

As regards the commercial prospects of the undertaking, it may be stated that the Atlantic Company have begun their work under the renewed agreement with the Government for a subsidy of £20,000 a year, and in addition, a guarantee of 8 per cent. upon a capital of £600,000. All systems of Government guarantee of this kind are in themselves radically bad and opposed to every rule of free trade commercial enterprise. In this case, however, the guarantee is not only at variance with the principles of political economy, but possesses its own special attributes of absurdity. Thus, in return for their guarantee, which is only to continue in force while the line is in working order, the Government demand that the maximum charge for messages shall not exceed 2s. 6d. per word. With such a tariff the line would be absolutely choked with messages, and the company, in return for its over-work and general maladministration of business, would only receive a revenue of £250,000 a year. At a tariff of £1 per word, on the contrary, the company while guaranteeing a message to and the receipt of a reply from any part of the United States within 24 hours, could with ease earn a revenue of £1,000,000 a year, or nearly twice the cost of the present cable. In fact, the Government guarantee is only conditional on the line being in working order, and while it is so working the company can, for the reasons we have stated, do ten times better without it. If the shareholders are wise, the sooner they shake off this clog upon their enterprise the better. At present, it is estimated that the operation of telegraphing can be safely conducted, day and night, at the rate of from six to eight words a minute. Both Professor Thompson and Mr. Varley, however, are confident that with the new machines they have invented this rate may be increased to nearly twelve words a minute. On this expectation, however, we decline to venture an opinion. The dispatch of a message of one hundred words through the line to America, and the clear receipt of a similar number in reply, will, after the cable has been laid, be accepted by the company as a proof that the wire is in perfect working order, and without further formality it will at once be opened to the use of the public. Most earnestly do we hope that this great scientific undertaking may be followed by the commercial and political success which the completion of telegraphic communication with the United States must achieve.

THE COMPLETION OF THE CABLE OF THE ATLANTIC TELEGRAPH.

(From the London Times, May 30.)

Yesterday the last mile of this great cable was completed, and wound through the last of the covering machines, in the presence of a large number of distinguished visitors who had assembled to do honor to the occasion. Beyond recording the fact of its completion, very little took place at the works of the Telegraph Company yesterday to call for special remark. All the most distinguished electricians and engineers, and all the leading scientific gentlemen who have so long watched and aided to the utmost of their power the promotion of this great scheme, were present, together with all, or nearly all, the directors of the Telegraph Maintenance Company; Mr. Glass, as usual, receiving the visitors. As a mere sight, there was, of course, very little to be witnessed—much less, in fact, than might have been seen at the works any day this twelvemonth past. Only one machine had half a mile to complete—that is to say, to case the core with Mr. Wright's most ingenious and simple patented apparatus, inclosed wire with strands of hemp which form the outer covering. When all the visitors were assembled this was started, and the core wound regularly and slowly through the center of the machine, which revolving round at a great speed, completed the outer case of hemp and iron. Working at fourteen hours a day each machine is able thus to cover four miles an hour, the average rate of manufacture for the four machines having been about seventeen miles per day. As the cable is drawn out of the machine it passes through a gauge, which compresses it firmly, and then out of the manufactory away to the tanks, where it is coiled under water, and every change in its electrical condition noted with a care and minuteness that have certainly never been applied to any other cable.

From first to last, indeed, it has been subjected to a series of the most searching electrical tests, the standard of insulation being fixed at a resistance per nautical-mile equal to 150,000,000 of Siemen's units, at a temperature of 75°—a standard wholly unprecedented in any former work of the kind. In actual practice these tests, great as they were, have been considerably exceeded, and the present Atlantic cable has come out successfully from a series of trials of the most crucial character. The results which have been obtained have been due mainly to the searching investigation into the qualities of insulating substances which is now

practicable by means of the beautiful mirror-galvanometer of Professor Thompson. Another of the tests employed was soaking separately each joint of the gutta-percha covering for twenty-four hours in warm water previous to passing the electric current through. A third, and perhaps the most trying and continuous test, was that of allowing no part of the cable to be out of the water, except while merely *in transitu* from one reservoir to the other; and in connection with this it may be mentioned that the wrapping of jute yarn, which forms the padding around which the external wires are spun, instead of being soaked in tar, as in other cables, which has the effect of temporarily stopping up and concealing minute flaws, has been simply tanned to preserve it from decay, thus admitting the water to search out every part of the cable, and keep it, in fact, constantly surrounded with a wrapping of wet yarn. Toward five o'clock, yesterday, the last few fathoms of the great coil began to be drawn into the machine, and in a few minutes after the end was wound up a self-acting bell rang to give notice that the machine was empty, and almost at the same moment the end came down into the tank, and the last coil of the cable was stowed away.

The next great object of interest was the inspection of the paying out apparatus, which has been already fixed up, and, by means of an endless band, kept constantly running. This beautiful machine is an improved and extended copy, as far as general principle is concerned, of that used on board the *Agamemnon* during the first memorable attempts. Its improvements and modifications, however, are very great. Though stronger and much larger, it is very much lighter, being almost entirely of wrought-iron. It has six leading wheels, round which the cable passes in deep grooves before reaching the main wheel or drum, from which it will be finally submerged. Each groove in these six wheels is surmounted by what is termed a jockey pulley—that is to say, a solid wheel which keeps the rope down in the groove and prevents it over riding or getting out of place. The main drum is about seven feet in diameter, and in paying out it will have three coils of cable round it, with a guiding piece of wrought-iron pressing on them sideways to keep them completely together. As the friction on the guider is great and constant, a duplicate is provided in case of heating, which can be put in gear with the rest of the machinery without the slightest stop on any part. A second drum has also been fitted in case of anything going wrong with the first. Each of these drums is fitted with a distinct set of simple and most ingenious brakes, invented by Mr. Appold for the first expedition. The ordinary condition of these brakes is to maintain a sufficient check upon the drum to keep a strain of say 30 cwt. upon the rope going out, but it constantly happens that a sudden rise of the ship's stern from a wave gives the cable a strain that requires the instant removal of the brakes to relieve it. This is accomplished by a dynameter placed on the cable after it leaves the paying out machine and before it passes over the wheel astern into the Atlantic. This dynameter is only a heavy wheel resting on the rope, but fixed in an upright frame, which allows it to slide freely up and down, and on this frame are marked the figures which show exactly the strain in pounds on the cable. Thus, when the strain is low, the cable slackens, and the dynameter sinks low with it; when, on the contrary, the strain is great, the cable is drawn "taut," and on it the dynameter rises to its full height. When it sinks too low, the cable is generally running away too fast, and the brakes have to be applied to check it; when, on the contrary, it rises rapidly the tension is dangerous, and the brakes have to be almost opened to relieve it. The simplicity of the arrangement for opening and shutting the brakes is the most beautiful of all. Opposite the dynameter is placed a tiller-wheel, and the man in charge of this never lets it go nor slackens his attention for an instant, but watches the rise and fall of the dynameter as a sailor at the wheel watches his compass. A single movement of this wheel to the right puts the brakes on, a turn to the left opens them. A good and experienced brakesman will generally contrive to avoid either extreme of a high or low strain, though there are few duties connected with the laying of submarine cables which are more anxious and more responsible while they last than those connected with the management of the brakes. The whole machine yesterday worked beautifully, and with so little friction that when the brakes were removed a weight of two hundred pounds was sufficient to draw the cable through it.

In order to guard against any possible sources of accident, every precaution has been made in case of the worst, and, in the event of very bad weather, for cutting the cable adrift and buoying it. For this purpose a wire rope of great strength, and no less than five miles long, having a distinctive mark at every one hundred fathoms, will be taken in the *Great Eastern*. This, of course, is only designed to be used in case of desperate eventualities arising, and in the earnest hope that not an inch of it ever will be required. If its services should be wanted, the cable would be firmly made fast to its extremity, and so many hundred fathoms of the wire rope—according to the depth of water the cable was in—measured out. To the other end of the rope an immense buoy would be attached, and the whole then cut adrift and left to itself till better weather. In the experimental cruises which were undertaken before the starting of the last Atlantic expedition this attempt at buoying the cable was often tried in the deep water of the Bay of Biscay, but never with any great success, and in very deep water it would be a most forlorn hope even to try it at all.

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DISTRICT PROCEEDINGS.

SACRAMENTO DISTRICT.

Special meeting met April 30th. Meeting called to order by the District Director at 4.30 P. M. On motion, reading of minutes of previous meeting was deferred until regular meeting. Mr. Kennan then tendered his resignation as District Director, being compelled to leave for British Columbia, and asked for an honorable discharge from this District. The resignation was reluctantly accepted, and the meeting proceeded to elect his successor. Mr. Frank Jaynes, of Sacramento was nominated and elected almost unanimously. Having taken the chair and assured the meeting of his best intentions in performing his duties, the following names were proposed for membership: Jas. Urquhart of San Francisco; J. G. Bloomer of Virginia, Nevada; Geo. Sawyer of Virginia, Nevada; H. A. Hedger, Washoe, Nevada; Geo. Bruckman, of Genoa, Nevada; J. H. Davis, Genoa, Nevada; Geo. Lenf, of Aurora, Nevada; E. A. Whittlesey, of Oakland, Oregon, all of whom were declared by ballot members of this District. No further business being presented, meeting adjourned at 6.30 P. M., until May 7th.

Regular meeting called to order at 7 P. M., May 7th. District Director in the chair. Minutes of previous meetings read and approved. The following names were proposed by different members, as candidates for admission into this District. J. Leet, of Strawberry; M. Hodge of Carson, Nevada; Jno. Leatch, W. R. Yontz, H. N. Stevens and Jno. Henderson, of San Francisco, all of whom were unanimously elected members of this District. The District Director then addressed the meeting, stating the condition of the organization. He also commended "THE TELEGRAPHER" to the members, and invited those who had not already subscribed, to forward names and funds immediately to augment its circulation. On motion, the meeting after a pleasant and harmonious session, adjourned until June 7th, at 7 P. M.

C. P. HOAG, *Dist. Sec'y.*FRANK JAYNES, *District Director.*

ALBANY DISTRICT.

Regular meeting of this district was held at 9.30 P. M. Tuesday evening, June 6th; District Director in the Chair and 29 members present.

The following named gentlemen were transferred to other districts, having removed, viz: P. H. Shaughnessy to New York; Park Fitchett and Isaac H. Fonda to Utica.

Local Director Rice announced the following applicants for membership: S. E. Mayo, Manager Western Union Line, Albany. J. F. Reardon, West Point, and O. W. Briggs, Newburgh. Each of the above named were unanimously elected. After transaction of local business, meeting adjourned until the second Tuesday in July.

A. L. WHIPPLE, *Dist. Director.*M. L. MORGAN, *Dist. Sec'y.*

WASHINGTON DISTRICT.

Nineteenth Regular Meeting of this District called to order at 8 P. M., 1st inst. The following persons were elected members of the Union: A. S. Adams, F. W. Davis, Thos. Q. Waterhouse, Joseph H. McGovern, L. M. Harris, Wm. A. Dunn, C. D. Hammond, Thos. A. Dailey, F. B. Knight, George A. Low.

A committee of three reported the following nominations for District officers and delegates to the next Convention, the nominations being accepted by the meeting: For District Director—Louis A. Gallup, F. W. Royce, H. B. Berry; District Secretary—M. Morean, A. Flowers, T. H. Sherman; District Treasurer—P. A. Stidham, C. L. Whipple, H. H. Bishop; Delegates to the Convention—J. D. Thurston, W. H. H. Clarke, W. H. Young, T. N. Loucks, F. W. Royce, Thos. Morrison; the three receiving the highest number of votes to be delegates, the three others to be their alternates respectively. Adjourned 9.40 P. M.

WM. H. H. CLARKE, *District Director.*M. MOREAN, *District Secretary.*

MAINE DISTRICT.

Regular meeting held on evening of first instant, the Director presiding.

On motion of Mr. Silsby, Mr. C. H. Sawyer, of Portland, was nominated for delegate to the Convention, and on motion of Mr. Hanseom, Mr. G. S. Silsby, of Frankfort, was nominated for District Director, Secretary and Treasurer.

After some business of local character, meeting adjourned to the first Monday evening in August.

C. H. SAWYER, *District Director.*

BALTIMORE DISTRICT.

Meeting called to order, 3 P. M., July 2, District Director in the Chair. Roll called, eighteen members present. Proceedings of previous meeting read and approved.

Report of Committee on By-Laws was read, and after several amendments being made, was adopted.

The following named gentlemen were duly elected members of this District: J. L. Courtwright, Mannington, Va.; Geo. M. Deetz, Frostburg, Md.; R. J. Cully, Baltimore.

Mr. McDonald, of Cumberland, was proposed, and case handed to Local Director for investigation.

G. L. Shea, of Newburgh, Va., duly rejected.

Other business of local character was transacted previous to the following nominations being made: For District Director—J. B. Yeakle, J. J. G. Riley, Wm. Barrett, Chas. E. Ways, and T. M. Quinn; For Secretary—C. S. Shiver, A. J. Lombard, W. F. Lawrence and J. F. Hahn; For Treasurer—C. W. Crumbacker, J. S. Williams, H. C. Showare; For Delegates to Convention—J. B. Yeakle, A. Wilson, Jr., M. B. Graham, H. C. Showare; M. H. Kerner, J. J. G. Riley, Chas. E. Ways, T. M. Quinn.

A communication was read from the Detroit District, but no action taken upon it. Adjourned 6 P. M.

A. WILSON, JR., *Dist. Director.*M. H. KERNER, *Dist. Sec'y.*

BOSTON DISTRICT.

In lieu of the proceedings of this District we print the following letter:

BOSTON, July, 1865.

To the Editor of The Telegrapher:

In the last number of THE TELEGRAPHER you make several suggestions which strike me as being ill-advised. First, with regard to Local Directors: Whatever may have been the idea meant to be conveyed, or whatever changes might be advisable, it does not alter the fact that the Constitution expressly provides (Art. I, Sec. 1, Clause 3) for "a Local Director for each office," and in the several other clauses wherein Local Directors are mentioned, the term "office" is too plain to be misconstrued. In reading and obeying the provisions of the Constitution we must read and obey them as we find them, and not as they are supposed to mean, or should mean. We must deal with facts not fancies. The Constitution providing expressly for a Local Director for each office, it should be carried out according to its literal interpretation until the desired changes are made. The fact is, Districts have been too much inclined to interpret various clauses in the Constitution to mean just what they wish them to mean, instead of obeying them as they stand. If any clauses are objectionable there is nothing to be done but to accept and obey them as they are, and at the next Convention make the desired changes.

The idea of having but one Local Director in small cities and towns is a good one, but in the larger cities, such as New York, Philadelphia, Washington, Boston, &c., to have but one Local Director would be unwise and impracticable.

The duties of a Local Director, in a large office, if properly attended to, are many and arduous. He is to "collect, count and declare the vote of his office in all elections, and forward to the District Director the vote of his office on all general elections; examine the qualifications of candidates for membership through his office, and report the same to the District Director." He is to "collect all dues, fines and assessments of members in his office, and forward the same to the District Director, and to attend to such disbursements as the District Director may authorize." He is "to become thoroughly acquainted with the qualifications of any and all members connected with his office" with a view to their obtaining situations through the General Officers, when unemployed. He is to investigate and "report to the District Director" relative to all cases of sick members in his office who apply to the Union for aid; and he is to have "a general supervision of the affairs of his office."

In small places where there are but a few operators, one person can easily attend to all these duties, but in large cities it is too much to ask or expect of one person, the greater portion of whose time is occupied in the performance of his professional duties. The duties of District offices should be so divided as not to be burdensome. Another serious objection to the "one Local Director" idea is, that operators in the employ of one Company are not usually permitted to visit the operating departments of another, and even where such permission is granted, the opportunity to "become thoroughly acquainted with the qualifications of members" in such office is necessarily limited.

I would suggest, that it would be well to provide, at the coming Convention, to the effect that in large cities there should be a Local Director for each office, but that in smaller places one Local Director should be chosen who shall exercise the functions of that position in all the offices in such place; or it might be left with each District to decide for itself whether there shall be but one Local Director for each city or town in the district, or one for each office containing two or more members.

In regard to the election of General Officers, I regret that any names should

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have been mentioned in THE TELEGRAPHER. The convention as a body, and not individuals, should judge who are the ones best fitted to fill our most important offices.

I object decidedly to any one's dictating to the Convention who they shall elect or who they shall not elect. To say that either Mr. So-and-So, or So-and-so, should be elected to fill a certain office is injudicious, to say the least. Why should either one or the other be chosen? Are there no others equally deserving and equally competent to fill the position? The gentleman from Maine whom you propose for Recording Secretary, is a very worthy man and would undoubtedly make a good officer, but neither you nor I are to be the judge, and neither of us have any right to dictate to the Convention. If the gentleman from St. Joseph should be elected Recording Secretary, and our present President and Corresponding Secretary are retained, it gives to Missouri three out of five of the General Officers, which I assert would be unjust and out of all reason. The General Offices should be distributed fairly and equally once a year among the best men, and in different sections of the country. The President and Corresponding Secretary, however, should, as you suggest, be chosen from the same city or town. The General Offices for the past year, have, I believe, done their duty faithfully and well, and deserve much praise, but that is not sufficient reason for their being retained another year; because there are undoubtedly other men in the Union, who, if elected, would do their duty just as faithfully and just as well, and these offices should not be monopolized by any particular set of men.

According to your programme, as intimated in THE TELEGRAPHER, all our present officers should be retained except the Recording Secretary, who should be discharged, and either the gentleman from Maine or the gentleman from St. Joseph should be elected in his place. Now sir, the Recording Secretary is the founder, the prime mover in the formation of this Union, and one of its brightest ornaments at the present time. To him, more than to any other man, the credit belongs, and instead of suggesting his election to a still higher office, you propose to turn him out of office entirely, but to retain the other General Officers. Personally I have no feeling on the subject. My only desire is to see the offices fairly distributed among the best men.

I would suggest that each District signify to its Delegates its preference for such offices, not of course binding them to vote for any particular men, but simply expressing to them its choice, so that the delegates may vote as nearly as possible in accordance with the wishes of their constituents. TAM O'SHANTER.

NEW JERSEY DISTRICT.

A meeting of the New Jersey District, was held June 6th; a quorum being present the District Director called the meeting to order, when the minutes of the last meeting were read and approved.

The District Director then addressed the meeting, in which, he called the attention of those present, that it would soon be the duty of every member of this District to vote for officers for the ensuing year, either in person or by telegram as provided by the Constitution, and sincerely hoped that all would feel it their duty to study the interest of the Union, and be present if possible at the Annual Meeting, the first Monday in August, to elect Delegates to the National Convention to be held in Chicago next September.

The following named gentlemen, having been properly attested for, according to the requirements of the Constitution, were unanimously elected members of this District:

Mr. J. M. Bates, of Hohokus; Sam'l. Cammade, of Hightstown; Geo. R. Updyke of New Brunswick; Robert Stewart, and H. N. Silvers of Bordentown.

The District Director presented a bill for the purchase of 25 copies of District By-laws. Ordered paid.

On motion the District Director was respectfully requested to write to the Local Director, and request his attention to the duties devolved upon him, and request punctuality in their discharge.

On motion, adjourned.

The Regular Monthly Meeting of this District held at the house of the District Director on the 11th inst. Twelve members present.

The District Director called the meeting to order at 7.30 P. M., when the minutes of the last meeting were read and approved.

The District Director then addressed the meeting, in which he commended the members of the District for the lively interest they took in the welfare of the Union. When he considered that all but four present came from different parts of the State to attend these meetings, he felt proud of being Director of such a District, and hoped for their success.

He again called their attention to the duties which would devolve upon them at their next meeting, namely: the election of delegates to the National Convention, and suggested before they parted, they would place in nomination the names of the gentlemen they desired to represent them at that Convention and also nominate officers for the ensuing year.

He also called their attention to the remarks of the editor of THE TELEGRAPHER in the last issue of that paper, and hoped all would read them, and if agreeable to their wishes, be prepared to instruct their delegates to vote for the welfare of the Union.

He thought, himself, it would be necessary to alter the Constitution in several particulars, one of which is the duties of the District and Local Directors. He thought they should be held strictly accountable for their action in admitting members to the Union, even to a fine, and explained his reasons, which were, admitting members not filling the requirements of the Constitution.

He was afraid that some Districts vied with each other to see who had the largest number of members, and thus overlooked the duties devolved upon them.

On motion of Mr. Hinman, they then went into the nomination of Delegates:

Mr. Wright nominated Mr. Bellis, of Flemington, who respectfully declined on account of business.

Mr. Wright, nominated Mr. Roberts, of Lambertville.

Mr. Bellis nominated Mr. Stewart, of Bordentown.

Mr. Smith, nominated Mr. Wright, of Trenton.

Mr. Hinman, moved the nominations close. Carried.

Mr. Hinman moved that we nominate for District Director.

Mr. Stewart, nominated Mr. Wright.

Mr. Hinman, moved that the nomination close. Carried.

On motion Mr. Roberts and Mr. Stewart were nominated for Local Director.

On motion Mr. Moon, Mr. Bellis and Mr. Bloom, were nominated for Secretary.

On motion Mr. Hinman, Mr. Roberts and Mr. Crouse were nominated for Treasurer.

The Treasurer, Mr. Hinman, presented his report, showing a balance in the Treasury of \$21.75. Report accepted.

The following named gentlemen were then elected members of the Union:

Mr. E. H. Burd, of Delaware; Mr. R. C. Laverty, of Trenton, and O. S. Conklin, of Hohokus.

Mr. Crouse presented the name of a gentleman which the District Director declined accepting, he not being three years an operator.

On motion adjourned.

JOHN A. WRIGHT, *Dist. Director.*

C. S. BEALES, *Dist. Secretary.*

CHICAGO DISTRICT.

District met pursuant to adjournment, July 8, Nine P. M.

In absence of the District Director, Mr. A. H. Bliss was appointed chairman.

On motion the reading of the minutes of last meeting was dispensed with.

The Treasurer being absent no report was given.

Messrs. D. Burnet, and G. H. Williams, of Chicago, were proposed for membership and duly elected.

On motion of Mr. Bradley the number necessary to constitute a quorum was reduced to ten.

On motion of Mr. Wild, the term of holding our regular meetings was changed to Wednesday evening.

After transacting some other business of a local nature, the meeting on motion of Mr. Bliss, was declared adjourned, subject to call of the Director.

A. H. BLISS, *Chairman.*

GEO. MAKLE, *Dist. Secretary.*

ALBANY DISTRICT.

Regular meeting held on the evening 11th inst. The following gentlemen were elected members of the Union, viz:

Thomas Quackenbush, and W. C. Hadley, of Green Island, and J. L. Jones, Troy, New York.

Mr. R. J. Fowler having removed to Buffalo, and his resignation as District Treasurer being accepted, Mr. J. L. Way, was elected for the unexpired term.

After the nomination of a ticket to be supported at the coming election, the meeting adjourned to meet the first Monday in August.

M. L. MORGAN, *Dist. Secy.*

A. L. WHIPPLE, *Dist. Director.*

UTICA DISTRICT.

Meeting called to order at 9 P. M., June 17. District Director in the chair. D. L. Pike was appointed Secretary *pro tem.*

The Director informed the meeting that he had received notice from the District Director of Albany District, that J. H. Fonda, and Park Fitchett, who now reside in Utica, are eligible for membership in this District. They were accordingly enrolled.

Mr. D. L. Pike, proposed for membership, D. R. Stafford, S. A. Brown, G. A. Hurlbert, all of Syracuse, who were elected unanimously. Adjourned.

Meeting called to order at 7.30 P. M., 11th inst.; District Director in the chair.

Mr. Bailey proposed Mr. Geo. E. Allen, for membership. Elected unanimously.

The Director stated that this meeting was called for the purpose of agreeing upon some systematic way of choosing a Delegate from this District.

Mr. Bailey offered the following resolution:

Resolved. That Messrs. Pike, Kern and Chase, be nominated as three candidates for the office of Delegate. Unanimously adopted.

Chairman appointed Messrs. Bailey and Fonda as inspectors and tellers of election.

Mr. Bailey moved adjournment. Carried.

J. B. SABINE, *Dist. Director.*

H. L. BAILEY, *Dist. Secy.*

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NEW YORK DISTRICT.

The meeting night for this month falling on the Fourth (inst.) the meeting was postponed until the evening of the 18th inst., at 8 o'clock P. M., in order to assemble in our new room No. 52, 117 Broadway. Twenty-three members present. Meeting called to order by the Director. Minutes of the last meeting read and approved.

The Director made some appropriate remarks in regard to the character of the Delegates to be chosen, and the duties to be performed at Chicago. District Treasurer's report read and ordered on file.

Mr. John B. Hurd, of Lackawaxen, Pa., was elected a member. Four names were declined because their proposition was not made in season, but will be acted on next meeting.

Dr. Cure, Chairman of Committee on resolutions of condolence and sympathy with the widow of the late J. W. Fish, made his report, which was accepted and placed on file.

Mr. Beach, Chairman of Corresponding Committee, reported the supposition that his Committee was discharged. His memory was disabused, and Committee ordered to continue its duties. Subscription Committee not heard from.

Mr. Smith moved a Committee of three be appointed to tender to the American Company the thanks of this District for the use of room 21, 145 Broadway, in which we have held our meetings since November, 1863. Messrs. Smith, Oltman and Beach were appointed such Committee.

The Director announced nominations for Delegates and District Officers in order. The following nominations were then made:

Delegates—M. V. B. Finch, K. Thompson, F. G. Beach, J. B. Oltman, J. W. Burnham, Thomas Dennis, O. M. Gay, J. L. Edwards, W. K. De Witt, C. H. H. Pannell. Substitutes—J. B. Page, H. P. Jones. Independent candidate—M. H. Redding.

District Director—Walter Steinhoff, M. B. Lillis. Local Director—J. C. Christie, W. H. Collins, J. W. Burnham. District Secretary—D. R. Downer, Thomas Allen. District Treasurer—Thomas Dennis, M. H. Redding, F. P. Brown.

Meeting adjourned 9:40 P. M.

D. R. DOWNER, *Dist. Secy.*

W. STEINHOFF, *Dist. Director.*

DETROIT DISTRICT.

The regular meeting of this District met July 5th, at 8:30 P.M., District Director in the chair, Mr. Cowlam acting as Secretary.

Minutes of the last meeting read and approved.

Mr. Cowlam offered the following:

Resolved, That a subcommittee be nominated to act in place of the regular nominees, in case the one elected as delegate may be in any manner prevented from serving.

Resolution adopted. Meeting proceeded to make nominations for a delegate to the Convention, which resulted in the choice of Messrs. C. Fox and T. W. Priest, as Regular Delegates, and Mr. A. Fox, substitute for the former and G. W. Cowlam substitute for the latter.

Phelix A. Duffie, of Kalamazoo, Mich., and O. H. Lincoln, were elected members of this District. There being no further business the meeting adjourned to meet on the first Monday in August.

T. W. PRIEST, *Dist. Director.*

G. W. COWLAM, *Secretary pro tem.*

ATLANTIC OCEAN TELEGRAPHY.

Editor of The Washington Chronicle.

Sir: The Atlantic telegraph cable is now, probably, being laid, and I desire to commit myself on record respecting that important enterprise.

The cable will be over 2,000 miles in length, to be operated as one circuit. The company, on raising its capital, asserted that it would transmit intelligence at the rate of sixteen words per minute. It is now stated that it will transmit, commercially, eight words per minute. Such is the proposition which the company proposes to demonstrate in a few days. To what extent the cable will operate is a problem, and the solution will be of great interest.

In my opinion, there is not the least possibility of the transmission of even five words per minute. If that number be hurried through the cable, the molecular destruction will be inevitable. It may be possible to send two or three words per minute; but at that rate the conductivity of the metal will fail within ninety days, and, perhaps, ere that epoch the insulation will cease to be effective.

Now, I propose to reason little, that the uninitiated may not be misled either as to confidence in my judgment or hopes in ultimate success. The working of a submarine circuit of 2,000 miles is a problem of the highest scientific consideration, and we should be careful in forming conclusions.

Lines constructed through air, suspended on poles, may transmit commercially forty words per minute. The length of a circuit may be 500 miles, and seldom, if ever, 1,000 miles; in no case, however, in any part of the world has a circuit been operated through air or otherwise a distance of 2,500 miles. In the month of March last the New York *Journal of Commerce*, and many other papers in America, published the following.

To SAN FRANCISCO DIRECT.—On Sunday morning, at three o'clock, the wires of the Western Union Company were connected with the Pacific lines, and communication established direct between this city and San Francisco. Though the weather was bad, rain falling at the time at many points on the route, the wires worked well, and a considerable amount of business was transacted. The distance is nearly 4,000 miles, and the difference of time about four hours. This is unquestionably the longest telegraphic circuit ever worked, and the fact that such a length of wire was telegraphed over in one circuit is a notable era in the history of telegraphing."

This fabrication imposed upon the press, of course was designed to effect an object. The line of 4,000 miles was composed of from six to ten circuits, over each of which the despatch had to be sent by mechanism or by an operator, bringing into action a new battery for each circuit.

The Atlantic cable cannot be divided into a series of circuits; it must be worked as one unbroken line, and I will give the nearest example as to submarine length. The Malta and Alexandria cable, submerged in the Mediterranean sea, is the nearest approximate. It is in length about 1,350 miles, divided into three sections, the longest of which is about 650 miles. The first section was laid between Malta and Tripoli, on the African coast; then the cable was taken to sea and again brought to shore at Bengazi, and then again taken to sea and landed at Alexandria, the latter section being 650 miles in length. The object of the British Government in dividing the line into sections was to increase the speed of transmission. When the line has been worked as one circuit, namely, 1,350 miles, the highest speed of transmission attained has been three to four words per minute; but when operated in sections, with the longest circuit only 650 miles, the speed was from fifteen to sixteen words per minute. Here, then, is the proportion: If a submarine cable can transmit over a circuit of 650 miles fifteen or sixteen words per minute, and over a circuit of 1,350 miles three to four words per minute, how many words per minute can be transmitted through the Atlantic cable, stretched over 2,000!

It is but fair to state that with the apparatus prepared by Professor Thompson, and by the use of abbreviations, three or four words per minute for a few days may be attained.

There is not one step advance in the science of electricity since 1858, to justify any other hope than that which might have been entertained at the laying of the other cable.

The phenomena of the Leyden jar is developed in all submarine telegraphs in proportion to the length of the cable. When the conducting wire is charged by an electric battery, the negative of that charge encircles the cable, and produces what is called "inductive retardation." Besides this hindrance, we must consider the force of the earth's magnetic currents, and of this phenomena we know but little.

I desire to close this letter, full of commitment, with the following extract from my publications of 1854, and the philosophy therein declared I reiterate:

"I will not say that an electric current can never be sent from Newfoundland to Ireland, but I do say, that with present discoveries in the sciences, I do not believe a line of that length can be made practicable for commercial telegraphy."

Very respectfully,

TAL. P. SHAFFNER.

PATENT CLAIM, 48,408.—ELECTRO-PHONETIC TELEGRAPH.—Royal E. House, Binghamton, N. Y., Patented in England July 26, 1864:

I claim, 1st, In combination, a magnetized needle, a helix, and an adjustable torsion suspension apparatus, extending both above and below the needle; the combination being substantially such as is described,

2d, In combination with a magnetized needle suspended by a torsion wire or thread, I claim "limitors" for limiting its motion and which give sound when struck by the needle; the combination being substantially such as described, and in combination with these a gong or bell substantially such as specified.

3d, In combination with a torsion suspended magnetized needle, I claim a knife edge applied to the needle and acting substantially as set forth, and also in combination with a magnetized needle, a knife-edge and "limitors" arranged with reference to the needle substantially as described.

4th, A suspension torsion apparatus consisting of wires or threads attached to collars or rings as described, in combination with a magnetized needle supported in the collars substantially as described; and also a magnetized needle in combination with a torsion suspensory apparatus, both ends of which can be adjusted as set forth, and also a magnetized needle in combination with a torsion suspension apparatus, both ends of which can be adjusted at once by reason of being geared together both these combinations being substantially as set forth; and also in combination with a magnetized needle an adjustable torsion suspensory apparatus, extending both above and below the needle and having one thread or wire attached to a weight substantially as described, so as to compensate for the varying length of the wire.

5th, A magnetized needle, in combination with "limitors," and a gong or bell, and a concentrating cone, and in combination with these an outer cone, all these parts being substantially such as set forth; and also a sounding apparatus, consisting of a bell and a truncated concentrating cone, arranged with reference to each other as described; and in combination with such an apparatus an outer concentrating cone, arranged with reference to a bell and interior cone as described.

6th, Sections of a helix composed of members connected to and insulated from each other substantially as set forth.

7th, A helix made up of sections of varying diameter insulated from each other as described.

8th, A helix made up of sections connected to and insulated from each other as set forth.

9th, A helix made up of sections composed of members where both the members and the sections are connected to and insulated from each other substantially as set forth.

10th, A helix made of decreasing area to the ends as described, and also a divided helix or a helix made in two parts, so that one part may readily be moved away from the other, and also a divided helix in combination with a divided case, all substantially as specified.

11th, An apparatus substantially such as is described, for registering the power or force of reaction, in combination with a telegraph line and a signalizer, whereby the locality of excessive leakage may be determined, as described.

12th, A helix making part of a signalizer, in combination with branch lines and ends of a main line capable of being advanced towards and drawn away from each other; the combination being as described.

13th, A helix making part of a signalizer, in combination with branch lines and ends of a main line capable of being operated as described, and with tubes containing liquid as described, whereby varying amounts of currents of electricity may be caused to pass through a helix, substantially in the manner and for the purposes specified.

14th, In combination, I claim a helix making part of a signalizer, branch lines, or conducting wire, an electric adjuster, located between the points where the branch wires are connected to the main wire, and a key or circuit-breaker also located between the points where the branch wires are connected to the main line, and operating when open to send the whole current through the helix.

15th, A helix making part of a signalizer and united to a main line by branch lines or wires, substantially as described, in combination with an electric adjuster in connection with or making part of a main line, and located between the points where the branch lines are connected with the main line as described; whereby the relative proportions of electricity passing through the adjuster and the helix may be governed and regulated as described.

16th, A helix of a signalizer, in combination with a line by means of a tube and adjustable severed wire as described, when the wire is provided with a register or index as set forth; whereby the condition of a helix or of the batteries that work the line may be tested, in the manner specified.

17th, An apparatus substantially such as is described, whereby the apparatus for adjusting torsion, and the apparatus for adjusting the relative position of the ends of a main line, may be put in operation at the same time, substantially as set forth.

18th, In combination with a line I claim a series of helices differing in size at each station thereof and proportioned each to the other in proportion to the length of line between each helix and the most distant extremity thereof, the combination being substantially as set forth.

19th, The new telegraphic signalizer herein described, composed of a helix, a torsion suspended magnetized needle, "limitors," and a bell and concentrating apparatus; all substantially such as herein before specified.

20th, In combination with a helix making part of a signalizer and connected to a line by branch wires, I claim a key or commutator located in the line and capable of breaking the current through both the main line and the branch wires, the combination being substantially such as described.

21st, In combination with an ordinary protector, such as is described, applied to the ordinary wire of a line, I claim a protector such as is specified applied to a fine wire inserted in and making part of the main line, for the purposes specified.



MONDAY, JULY 31, 1865.

TO CONCLUDE.

We again ask, as we asked last year, to have Clause 2 of Article V of the By-Laws stricken out.

It has been claimed that some parts of the Constitution properly belong to the By-Laws. This should be looked to, and if found to be as claimed the alteration should at once be made. We have never found time to investigate this point. We beg leave to dissent from the proposition of the Boston District to empower the District Treasurer to make remittances to the Treasurer of the Union. This duty should remain the District Director's. The correction of Clause 2, Section 2, Article VII, as recommended by this District, will be necessary. We also dissent from its proposed amendment to Art. III, Sec. 1, Clauses 1 and 3 of the By-Laws, as also to the alteration of Clause 5, Art. X.

We now pass to other matters which will need the attention of the delegates.

The necessities of THE TELEGRAPHER have forced us to disregard many of the provisions of the "Review Bill," which when explained in our Annual Report, will, we hope, be sanctioned by the Convention. This action of ours has been simply to meet the requirements of the paper and to make such alterations and improvements as the circumstances seemed to demand, and not to set at naught the legislation of the Convention. As THE TELEGRAPHER has proved a very remunerative as well as a very big elephant, we feel sure the delegates will feel kindly towards us for doing that which we considered best for the general good.

Section 1 of this bill should be amended to allow us to issue our sheet oftener, as it has been proved that a monthly issue is too infrequent. If certain hoped for arrangements are effected at Chicago it is our intention to issue half (8 pages) of the present issue twice a month, to be increased in size and frequency of publication as has been done heretofore. If this object be attained Section 5 must be altered so that we can publish on the first and fifteenth of every month. The last part of Section 4 should be amended so as to allow the editor to make his reports quarterly instead of monthly, as from the nature of things it is impossible to report oftener.

We find it necessary to alter the manner of printing the District Proceedings, which alteration will be explained in our Annual Report.

The following words of Section 13, "acknowledge, through the columns of the paper, the receipt of the same, and the editor shall," having become obsolete, should be stricken out.

Section 14 needs a pecuniary alteration badly.

The price of THE TELEGRAPHER should be left to the Editor thereof, with the advice and consent of the President, therefore Section 16 will need amending accordingly.

As the printing for the Union and THE TELEGRAPHER has reached a large amount per month, we desire to give notice that we shall in our report advise the establishment of a printing office in this city. Besides our own work we hope to obtain the patronage of the several telegraph companies.

The resolution printed on page five of this paper relating to the in-

vestment of the surplus funds of the Union should be so amended as to make it the duty of the Treasurer to keep the surplus funds constantly accruing, invested in United States or other sure paying bonds. The current expenses can by this time be estimated; but if the estimate falls short our credit is good until remittances are received to meet the demand.

We hope some decision will be arrived at in reference to a Seal for the Union. This matter has lain too long already. A committee composed of Messrs. Partrick, Black and Buckwell was appointed to report a design and motto, but they decided to await the passage of the Charter through Congress before taking final action. The failure of Congress has made their labors also a failure, unless they have reconsidered their decision.

We regret the rejection of our resolution offered at the last Convention to have the Constitution and By-Laws inscribed on parchment. We deserved the fate it met for not explaining clearly our idea, which was this: To have the *original* Constitution and By-Laws so inscribed and preserved so that in future years we (the members) might refer to it, to note our (the Union's) progress, and as a curiosity. It is not yet too late, as we have a copy of the original instrument.

The Charter for the Union will need some slight alterations, viz.: Sec. 3 to read "ten dollars" instead of "two dollars," and "five dollars" instead of "ten dollars," and in Sec. 6, instead of the words "one hundred and fifty thousand dollars," insert the words "five hundred thousand dollars." There is another amendment of which we do not feel inclined to speak of here, but which will be made known to the delegates at the proper time.

The suggestion of Mr. Buckwell, at the June meeting of the Philadelphia District in reference to honorary membership is a good one and worthy the consideration of the delegates. We trust some measure to this end will be effected which must be hedged about with the proper and necessary restrictions and limitations. It should not be confined to members only but extend to any worthy person who is or has been engaged in telegraphing. It has been claimed with some show of reason that the right of membership should extend to those persons who, although not operators, have in other branches of the business grown gray in the services. We think this subject deserves consideration, and hope it will be considered, but we will not now speak for or against it.

As the South which is now reorganizing will ere long be knocking for admission into the Union it will be necessary to decide upon its qualifications. If any conditions be imposed we trust they will not only be liberal but just.

Some provision should be made so that our Canadian neighbors may be brought into the Union. They are beginning to find out that our association is a worthy one and not a "Yankee trick" for making money. Admit them!

In all human probability the ATLANTIC CABLE will be successfully laid before these pages will be ready for perusal by our readers. It is our intention to devote as much of the space in this issue to the all absorbing subject as possible.

That the cable will be successfully laid there is scarcely a doubt; that it will work for a long time, perhaps for years, is very probable; but if the huge ship is overtaken by a storm, as there is a possibility she may, and should she chance to get into the trough of a sea, the great hopes of the world will be dashed.

We have continually given items of interest in reference to this new cable. On page 25 (No. 3) of this paper, a comparison between the old and new cables will be found. It will be seen that the new cable is more than twice as large, and stronger than the old; while the new cable weighs in air nearly twice as much per nautical mile as the old; it weighs in water but a fraction of a ton more. The breaking strain of the new is more than twice as much as the old.

We print elsewhere in this issue some interesting particulars of the testing of the cable by the electricians; also an article from *The (London) Times* upon the completion of the cable, and the manner in which it will be submerged.

On the 9th or 10th inst., the great ship will set out on her momentous voyage, and by the 24th we may reasonably expect to exchange our compliments with the last heir to the English throne.

The Great Eastern has stowed in three huge tanks 7,000 tons of cable; 2,600 miles, 500 miles more than will probably be used; to this add tanks, coal, and engines, and the burden of the vessel on her voyage will be 21,000 tons which is 3,000 less than her tonnage capacity.

One great bug-bear has been removed. The high precipices which were supposed to occur about 300 miles from either shore where the cable would have to plunge suddenly from a depth of 300 to 2,000 fathoms has been proved by recent surveys to be a gradual slope of nearly 60 miles, with an average inclination of not more than 145 feet per mile, which is an easy grade for a rail-road, and would cause "Young America" to turn up his nose if he desired to use it for a "sliding place."

It will be seen by the accounts we publish, that the shore ends of the cable are something wonderful, weighing but about half as much as a mile of rail road track. Let us have faith and hope in this the wonder of the world.

The Times of this city utters a wail over the high tariff to be charged by the cable company, and estimates the cost of a brief dispatch to the press at \$900, and adds that this great expense must be borne by the papers in order to keep items of important news from the exclusive use of a few monied speculators. Now, THE TELEGRAPHER does not complain of these high rates because with the limited means at their command the company must charge high in order to pay their expenses, and besides, we feel abundantly able to pay this or even a larger amount for important news from the other side of the globe.

The first dispatch which will pass through the cable will be one from Puck to the Editor of THE TELEGRAPHER, repeating his (Puck's not ours) world renowned speech delivered in England some years ago.

We are pleased to record the formation of a District of the N. T. U., at Harrisburg, Pa., of which Mr. James M. Fisher is Director. This District has been quietly formed and announced itself by making a deposit with the Treasurer. This manner of introducing a District is praiseworthy. Heretofore the initiation fees of several Districts have been retained until, as has been pleaded in excuse, "we get quite a sum in hand." It is only necessary, and quite necessary to at once deposit with the Treasurer the fees of five members to gain recognition.

The switch, of which we gave a description in our last number, cost the American Company a little over \$1,000.

We are pleased to announce that Mr. Charles H. Phelps, formerly a printing operator, whose death we announced in the fifth number of THE TELEGRAPHER, is alive and well, and is at this writing visiting his parents in Mumford, N. Y. We considered our information reliable at that time, but are very glad it has proved incorrect.

We desire further to place on record, in these pages, these facts: 1st. That President Johnson approved, on the 5th inst., the finding and sentence of the Military Commission of the assassination conspirators, and ordered the sentences to be carried out. 2d. That Powell, alias Payne, Harold, Atzerodt and Mrs. Surratt were hung in Washington, on the 7th inst. 3d. That O'Laughlin, Arnold and Dr. Mudd, were sent on the 10th inst. to the Penitentiary at Albany, N. Y., for life, and Spangler for six years. The other conspirator, John H. Surratt, has not yet been arrested.

Our readers must keep a sharp look out for new advertisements, as we are adding to them every month, and no one should miss their perusal. The better way would be to read "advertisements and all," as everything published in THE TELEGRAPHER is of such deep interest to telegraphers that none of it should be left unread.

We print in another column Prof. House's claim for his new instrument. We have always understood this to be a printing instrument, but judge from the claim it is not. There is evidence, however, of something wonderful and new in the way of a telegraph instrument.

The first word of the twenty-second line, last column, page 112 (June number), should be "Treasury" instead of "Secretary."

TELEGRAPHIC MISCELLANEA.

THE ATLANTIC CABLE.—The Prince of Wales visited the steamship Great Eastern on the 24th May, and minutely inspected the Atlantic Telegraph Cable and the works connected therewith. A very select and influential company of gentlemen were present on the occasion, among them George Peabody and Cyrus W. Field. The Canadian Commissioners in England, and numerous distinguished telegraph officials were also present.

A London letter says: "Yesterday's arrival of the China brought us a telegram to the effect that the American Government has refused to send a vessel to accompany the Atlantic cable expedition, because no official information had been received of the repeal of the regulation requiring Federal vessels to quit British ports within twenty-four hours of their arrival."

A sale was made in the Liverpool Stock Exchange, on June 17th, in the old £1,000 shares of the Atlantic Telegraph Company. The price paid was *four hundred and fifteen*. The last previous sale was two hundred and forty five.

The whole 2,800 miles of the Atlantic Telegraph Cable was on board the Great Eastern the 24th June, and as soon as the balance of the paying-out machinery was put up the telegraph fleet would sail for Valentia, and it was hoped, before their departure from Valentia, that a United States Government steamer would join them.

The vessels would probably leave Valentia on the 10th of July, and arrive at Heart's Content, Trinity Bay, about the 24th of July.

The directors of the company have decided on the following uniform tariff between all parts of the United States and British North America:

To Great Britain £20 for 20 words, or less, and £1 for each additional word.

To the Continent of Europe, £21 for twenty words, and £1 1s. for each additional word.

To Asia and Africa, £25 for twenty words, and £1 5s. for each additional word.

The address, date and signature are all to be counted and charged for in messages.

Messages for places in Asia and Africa to which the telegraph does not extend, will be forwarded by the first mail, postage paid.

Messages in cipher will be charged double these rates.

The directors are convinced that unless they charge high prices at first there will be such an accumulation of business that great delay will arise in the transmission of the messages, but they intend to put down new cables as fast as possible and then reduce the prices.

The cable will be opened for business as soon after it is laid as possible, and all messages will be forwarded in the order in which they are received at Heart's Content and Trinity Bay.

The new stock of the Atlantic Telegraph Company sells in London at a premium, and old £1,000 shares at £560.

On the 21st of June the shareholders in the Telegraph Construction Company visited the Great Eastern by invitation from the Directors of the Atlantic Company, and on the following day Mr. Adams, the American Minister, the Duke and Duchess of Sutherland, the Duke and Duchess of Somerset, and a large number of other distinguished people visited the ship.

The health of Mr. Adams was drank at the *dejeuner* on board.

Mr. Adams on returning thanks said, that during the recent troubles he was selfish enough to wish the cable might not be laid as he would have been overwhelmed with telegrams, but now he wished it every success, as he believed it would do more than any other agency to strengthen the bonds of union between the two countries. The interests and object of Great Britain had all along been to maintain peace, and now that the contest which had distracted the United States had been put an end to, the sole object they had in view was peace also.

No more visitors were to be admitted on board the Great Eastern before she sailed.

The present condition of the cable was all that could be desired, and those most interested in it seemed to be perfectly confident of its complete success.

THE RUSSIAN AMERICAN TELEGRAPH.—SAN FRANCISCO, June 20.—A despatch from New-Westminster, capital of British Columbia, says that the work of stringing the wires of the Russian Telegraph line has commenced in that city. A large force is employed. We will soon be in telegraphic communication with the mining-camps of Cariboo and the intermediate towns. The poles for three hundred miles of the line are on the ground.

THE MAINE TELEGRAPH COMPANY.—At the annual meeting of the stockholders of the Maine Telegraph Company, held in Bangor, Me., June 28, the following gentlemen were unanimously chosen directors for the ensuing year: Messrs. Hiram O. Alden and Wm. H. Simpson, of Belfast; Albert W. Paine, Jacob A. Smith and Albert Holton, of Bangor; Aaron Hayden, of Eastport; J. S. Bedlow and William P. Merrill, of Portland, and Edward O'Brien of Thomaston. At a subsequent meeting of the directors, Hiram O. Alden was elected President, and William P. Merrill, Secretary and Treasurer.

THE TELEGRAPHER.

The Montreal Telegraph Company declared a dividend of five per cent. for the last six months on the first inst.

The Pacific line has been interrupted on the Plains, with but short intervals, since the 24th ult. Gen. Connor left Fort Laramie about the 15th inst. with 1,000 men to chastise the Indians and restore communication.

It is a remarkable fact that electricity travels so rapidly that it may be sent through gunpowder without igniting it, and it is only when the current is retarded that an explosion takes place. The progress of electricity is swifter than that of light, being about 8,000 miles a second.

THE AMERICAN CO. have recently opened a third wire over the Baltimore and Ohio road, from Baltimore to Parkersburg, W. Va., where it connects with a wire to Cincinnati. This wire, 600 miles in length, is worked in one circuit without a repeater.

SUBSCRIBER, FT. MADISON, IOWA.—The best and easiest way to become a "sound" operator is to enter some office and practice until you become proficient. There is no way of getting at it "cross lots." The answers to your other questions will be given as soon as we learn them.

SUBSCRIBER, MORRISBURG, C. W.—We must insist upon our rules being observed. Send us your name and we will answer your question.

The Commissioners of the new Fire Department of this city estimate the amount of appropriations for the Fire Telegraph as follows: For 1865—Telegraph operators, \$3,000; supplies telegraph, \$9,500. For 1866—Salaries telegraph operators, \$5,000; supplies for telegraph and extension, \$20,000.

THE CHICAGO FIRE ALARM used up one hundred and fifty miles of wire in its construction instead of one hundred and fifteen, as we stated in June.

AN APPLICATION was made by Mr. Cyrus W. Field to the Secretary of the Navy to have the steam frigate Niagara detailed on the part of the United States to assist in laying the Atlantic Cable, but this was refused, as it is alleged, because England had not withdrawn her proclamation excluding our vessels from her ports, under what is termed the "twenty-four hours rule."

LECTURE.—Mr. Charles L. Chapin, telegraph operator at Police Headquarters in this city, delivered a lecture on the evening of the 26th ult., at the Tabernacle, Greenpoint, L. I. Subject: "Electricity and the Telegraph."

ITEMS.—Should any of our correspondents fail to receive prompt replies to their letters during the month of August, they will please take it for granted we are "in the country."

Surgeon John J. Craven, U. S. A., who is the medical attendant of Jeff Davis at Fortress Monroe, was the associate of Prof. Morse in the first experiments of electric telegraphy, and was also the partner of Col. Sam. Holt in a torpedo invention for blowing up ships.

We are in receipt of *The Chronicle* and *Sentinel*, and *The Constitutional* of Augusta, Ga., of the first inst.

The famous Cable-man De Saury, is on board the Great Eastern, and is to supply the natives with his daily bulletins from Heart's Content (?), N. F., about the cable.

Dr. W. H. Russell goes out in the Great Eastern to write an account of the laying of the Atlantic Telegraph Cable. The work will be illustrated by Mr. Robert Dudley and published by Messrs. Day & Son, of London.

"Chickamen lopé" is the Chinook for telegraph wire.

Mr. Cyrus W. Field was present at the celebration of the Fourth of July at Willis', St. James' Street, London.

The blundering manner in which business is transacted by the operators south of Richmond calls loudly for reform. It requires considerable acumen to decipher the actual meaning of a majority of the telegrams, and the delay caused by "wrong checks" is simply outrageous and inexcusable.

The wire works of Messrs. W. E. Rice and Co., Holyoke, and I. Washburn and Moen, of Worcester, have consolidated. See their advertisement on page 134.

RUSTIC, PHILA.—We know of nothing to the contrary. Your letter will appear in due season.

Mr. G. T. Lanigan, formerly of Three Rivers, C. E., has taken up his abode in Hawkesbury Mill, C. W., on the Montreal and Ottawa line. This is a new line, and runs from Montreal to Vandrenil on the Grand Trunk Railway poles, and thence along the south bank of the Ottawa River to Ottawa City. Offices are to be opened at Clarence, Plantaganet, Hawkesbury, Point Fortune, Régard, and Hudson (the Como Glass Works). The line is splendidly built, country level, and free of small trees, with no rivers to cross.

Unless the accounts of the Atlantic Cable prevail, we shall publish, in our next a spirited correspondence which took place recently between "A Stockholder" and "The President" of the United States Company.

The office of the *American Artisan* was burned when Barnum's Museum was destroyed by fire. We learn this misfortune of our cotemporary will not compel it to suspend publication.

The New York District held its first meeting in its new room on the 18th inst. The furnishing of the room reflects credit upon the committee charged with the duty.

John Morrissey, the pugilist, may be seen daily at the telegraph office in Congress Hall, Saratoga, during the hours when the New York stock board is in session, in electric communication with his broker on the subject that is thought chiefly to interest him.

We acknowledge the receipt of a ticket with the compliments of Mr. Jno. C. Stewart, to a Pic-Nic Excursion of the *Invincibles*, at Chelsea Grove, on the 27th inst.

Col. E. S. Sanford has so far recovered from his accident as to be able to move about on crutches, and is now at Saratoga convalescing.

PERSONAL.—Mr. S. J. Burrell, formerly a printing operator, leaves for California on the steamer of the 1st prox. He goes there to take charge of some mines in which he has an interest.

Mr. J. L. Lillis, at present manager of the American Company's "C. B." office in this city, leaves for the same destination on the 16th of August. We commend these gentlemen to the kind consideration of our California friends.

OUR THANKS—Are returned to the Hon. Henry O'Reilly for a copy of his anthems entitled "The American Jubilee," and "Freedom Triumphant," written for the Sumter Celebration, April 14, 1865, and dedicated to Abraham Lincoln, the great Emancipator. Music by John M. Loretz, Jr. Mr. O'Reilly is the author of three of these anthems, each of which bears date "Telegraph Office, New York, April, 1865." Published by the American News Company, 121 Nassau street, New York.

Also to Messrs. Trent, Filmer & Co., 37 Park Row, for a copy of the second edition of their "In Memoriam" of our late President. In addition to the contents of the first edition, this contains the concluding part of Mr. Lincoln's great speech delivered in December, 1839; his "Speech at Independence Hall, Philadelphia, in response to Mr. T. Cuyler, February 21st, 1861;" his "Reply to the Hon. Horace Greeley;" his "Letter to Mr. Hodges, of Kentucky;" also his "To Whom it may concern," and two more verses of his favorite poem. This new edition is printed on tinted paper, and is in every respect superior to the first.

Also for a copy of "Yankee Doodle," illustrated by Darley, the great American Pencil-Poet. This is also printed in clear type on tinted paper.

Also for a copy of "The Declaration of Independence." This is a fac simile of the original document in the hand-writing of Thomas Jefferson. It is a cheap but tasty copy of the great instrument which made these United States a nation of themselves, and it is a book which no American citizen should be without. These last two works are printed entirely from wood cuts.

Also for a copy of the suppressed critique on Napoleon's Julius Caesar, entitled "The Sayings of Labienus," on the Life of Caesar by Napoleon III, by M. A. Rogeard, translated by Madame O. Fournier, with explanatory notes.

Also to Dr. S. D. French, of Troy, N. Y., for a copy of the programme of the celebration of "Ye Ancient and Dyspeptic Order of Philly-Bustlers, July 4th, 1865." We beg leave to enquire of the Doctor whether—considering our colossal proportions—we were assigned a position alongside the "Belgian Giant from Mount Olympus," or on "Stilts" with "Phil Miller?" Your Celtic messenger delivered the "lether" which "yees sint" us.

A SUGGESTION is made by a leading spirit in the Union as follows: "To strike out the first section of Article XI of the Constitution, and insert one in its place, to require the District Directors to forward to the Editor of THE TELEGRAPHER any changes that may take place or any in contemplation, together with the qualifications of the operators; also making it their duty to send you all promotions, and by this means it seems to my mind we may be able to carry out the objects of the present section. A column could be set apart for this special purpose." We are agreed. What say the delegates?

THE WORD "desirous," in Mr. Buckwell's remarks at the June meeting of the Philadelphia District, should be "deserving."

WE HAVE received the card of Mr. L. I. Bright, Price Current Office, 51 Camp St., New Orleans, who is a "telegraphic commercial correspondent." Any person desiring "the markets" by telegraph will secure their ends by addressing him.

THE ST. LOUIS DISTRICT have held a meeting (!) and nominated the following:—For delegates—Messrs. Stoneback, Crain and Seymour; alternates—Robinson, Pierson and McMichael.

MR. ED. CONWAY, Assistant Engineer of the Collins' Overland Telegraph, advertises in the *North Pacific Times*, as follows: "Wanted! Axemen at Yale." Does he mean Yale College? if so, what evil does he wish to hew down?

The Boston Traveller is responsible for the following:

"Of all the freaks of the telegraph, the following is the most laughable which has come under our personal knowledge. Not long since a graduate from one of our eastern theological schools was called to the pastoral charge in the extreme south west. When about to start for his new parish he was unexpectedly detained by the incapacity of his presbytery to ordain him. In order to explain his non-arrival at the appointed time, he sent the following telegram to the deacons of the church: 'Presbytery lacked a quorum to ordain.' In course of the journey the message got strangely metamorphosed, and reached the astonished deacons in this shape: 'Presbytery tacked a worm on to Adam.' The sober church officers were greatly discomfited and mystified, and, after grave consultation, concluded it was the minister's facetious way of announcing that he had got married, and accordingly proceeded to provide lodgings for two instead of one."

At a meeting held recently by the directors of the Western Union Company the following resolutions were passed:

Resolved—That a dividend of 2 per cent. upon the capital stock of this company be, and the same is hereby declared payable at the office of the company, in Rochester, N. Y., on the 15th day of August, 1865, to the holders of said stock at the close of business on the 25th day of July, 1865, and that for the payment of such dividend the transfer books be closed at the close of business on the 25th day of said July, and remain closed until the 16th day of August, 1865. That by reason of the large number of the stockholders of this company residing in distant States and widely separated, it is deemed expedient, as well on the ground of convenience as economy, to change the manner of paying dividends from quarterly to semi-annually. Therefore,

Resolved, That hereafter the regular cash dividends of the Company be made payable semi annually, in January and July. O. H. PALMER, Secretary.

RECEIPTS AND TAXES OF TELEGRAPH COMPANIES.—When the Internal Revenue laws were amended in June, 1864, Congress decided to levy a tax of five per cent. on the gross receipts of telegraph companies, and below we give a table of their receipts since that time, with the amount of taxes paid:

AMERICAN TELEGRAPH COMPANY.			
Month.	Gross Receipts.	Month.	
July, 1864.....	\$94,072	February	\$118,861
August.....	118,398	March.....	141,056
September.....	118,821	April.....	182,228
October.....	124,173	May.....	125,189
November.....	107,476		
December.....	112,405	Total.....	\$1,805,891
January, 1865.....	112,614		
The tax of five per cent. paid on the above amount was \$65,294 75.			

UNITED STATES TELEGRAPH COMPANY.			
Month.	Gross Receipts.	Month.	
July, 1864.....	\$8,594	February.....	\$42,799
August.....	27,724	March.....	50,078
September.....	31,111	April.....	56,086
October.....	28,666	May.....	56,000
November.....	29,988		
December.....	27,662	Total.....	\$391,769
January, 1865.....	38,662		
Amount of taxes, \$16,738 82.			
American Telegraph Co. to Nov. 1864 \$80,086 12			
People's Line, to April, 1865..... 16,181 44			
Total.....			
Amount of taxes, \$2,818 85.			

THE ATLANTIC TELEGRAPH.—The following are some of the principal officers of the Atlantic Telegraph Company for 1865:

DIRECTORS.	
The Right Hon. J. STUART WORTLEY, Chairman.	
Curtis W. Lampson, Esq., Vice-Chairman.	
G. P. Bidder.	Samuel Gurney,
Francis Le Breton,	A. T. Hamilton,
Edward Cropper,	Edward Moore,
Edward Cunard,	George Peabody,
John Pender.	
Honorary Director—W. H. Stephenson, Esq.	
BONARY DIRECTORS IN THE UNITED STATES	
E. M. Archibald, H. M. Consul, New York.	
Peter Cooper, New York.	
William E. Dodge, New York.	
Cyrus W. Field, New York.	
Wilson G. Hunt, New York.	
A. A. Low, New York.	
Howard Potter, New York.	

HONORARY DIRECTORS IN BRITISH NORTH AMERICA.	
Hugh Allen, Montreal, Canada,	
William Cunard, Halifax, Nova Scotia,	
Water Grieve, St. John's, Newfoundland,	
Thomas C. Kinnear, Halifax, Nova Scotia	
CONSULTING SCIENTIFIC COMMITTEE.	
William Fairbairn, Manchester,	
Captain Douglas Galton, London,	
Professor Wm. Thompson, Glasgow,	
Professor C. Wheatstone, London,	
Joseph Whitworth, Manchester,	
Honorary Consulting Engineer—Gen. Marshall	
Lefferts, New York.	
Secretary and General Superintendent—George	
Saward, Esq.	
Electrician—Cromwell H. Varley, Esq.	

The *London Times* says that absolutely none not connected with the business of laying the cable will be allowed to go on the Great Eastern. Signals were being sent through the entire 2,500 miles of cable daily, and these signals are said to show the insulation and conductivity of the wire to be almost absolutely perfect, even in an electrical sense. With the rough instruments a message of four words had been sent through the cable in a minute and a quarter—and the Company believed their new instruments would more than double this rate of signaling.

The £5 shares in the Company had declined to 4@5 premium.

In anticipation of the successful laying of the Atlantic Cable, a telegraph line has been constructed from St. Johns, N. F. to Heart's Content, the point selected for the landing of the American shore end of the cable. An office has been fitted up there, and everything that can be done in advance of the securing of the shore end of the cable has been performed.

As the cable across the Gulf of St. Lawrence, between Cape Breton and Newfoundland, is now seriously deranged for the first time in seven or eight years, it is probable the messages from and to the cable will have to be sent across the Gulf by steamer, which will delay the press reports from four to six hours.

Should there be enough of the Atlantic cable left to stretch across the Gulf (80 miles), which is confidently expected, it will, we understand, be immediately laid.

We are informed that Mr. Leonard W. Jerome has tendered to the Telegraph Company his splendid steamyacht, the Clara Clarita, for the purpose of proceeding with Mr. Wm. E. Everett and a proper force of skillful assistants, to the Gulf of St. Lawrence, to repair the cable connecting Newfoundland to Cape Breton, by the time the Great Eastern reaches Heart's Content. We wish every success to the effort of Mr. Everett and those accompanying him, and commend Mr. Jerome for his liberality in offering the use of his beautiful yacht. If successful, we shall at once, on the arrival of the Great Eastern, be put in possession of dispatches announcing the incidents of the voyage.

Up to the time of going to press nothing further has been heard from the Great Eastern, except that she would not probably sail from Valentia until the 19th inst.

Another interesting letter is received from "Our own Correspondent" "Electron," but not in time for this issue, we regret to say.

The first pole of the "Collins' Overland Telegraph" was set at New Westminster, B. C., on the bank of Frazer River, February 24th, 1865.

Major Pope's expedition left Quesnell River on the 5th inst., for Fort St. James All well.

The American Company were put in direct communication with Richmond and Pittsburgh at 4 o'clock, P.M., 21st inst. The wire passes through the War Department, where copies are taken of all dispatches for the South.

NEW TELEGRAPH LINES.—The United States Telegraph Company has determined to construct a new line of telegraph connecting Washington with the Southern cities. Mr. J. R. Dowell has been appointed Superintendent of this line, and having matured arrangements for its erection, will commence the work at an early day. The same Company are putting up a new line along the route of the Erie road. The poles are now up some of the way between this city and Elmira.

The American Telegraph Company completed their line through Center Harbor, N. H., to North Conway, Friday, June 30. The office was opened July 1, for public business. Their offices at all the Mountain Hotels and on the summit of Mount Washington, were re-opened for the season on Monday, July 3.

The telegraph lines of Texas are to be worked by the Companies, subject to the supervision of Mr. L. B. Spellman, of the United States Military Telegraph. Government despatches are to go on. The line from Vicksburg to Shreveport is being renewed,

The Emperor Maximilian has granted to C. C. Clute & Co. the privilege of establishing three telegraph lines, one from Guanajuato to Matamoras, one from Matamoras to Vera Cruz, and one from San Luis to Durango; the privilege to extend fifteen years

Another line from California to the city of Mexico, passing along the coast through Guaymas, Marathon, Tepic, Guadalajara and other important and populous cities, is about to be granted to certain New York telegraph capitalists, who have been several months in treaty for it. These persons being proprietors in the overland telegraph, extending from San Francisco to Los Angeles, intend to make this a continuation of their present system of wires.

The telegraph line between Chattanooga and Washington, by way of Knoxville, Bristol, Lynchburg and Richmond, is now completed and in working order.

The Western Union Telegraph Company have opened an office in Cozzen's Hotel, West Point, for the accommodation of the guests and the public generally.

The Persian Gulf cable is interrupted. Telegraphic communication with India is consequently stopped.

RESIGNED.—Capt. W. G. Fuller, Superintendent of Military Telegraphs in the Department of the South-west, has resigned, and will be superseded by Capt. Gross.

The Reprint of the FIRST NUMBER OF THE TELEGRAPHER will be ready for delivery in a few days. Price for single copies seventeen cents.

MARRIED.

At Mattoon, Ill., on June 14th, by the Rev. Mr. Phillips, Mr. Phil. Deusner, Jr., late an operator on the U. S. Military Telegraph Lines, Department of the Cumberland, and formerly of Evansville, Ind., to Miss Alice Holladay, of the former place.

DIED.

In Evansville, Ind., on Sunday, May 11th, of hemorrhage from the lungs, Mr. E. W. Beach, aged 27 years and 16 days.

In Vicksburg, Miss., on Saturday, July 1st, of chronic dysentery, after an illness of three months, Mr. C. Cochran, Mr. Poor III, aged 23 years. Mr. C. was formerly an operator on the Illinois and Mississippi Lines, and recently on the U. S. Military Lines.

In Burkeville, Va., on June 23rd, Mr. J. A. Sheridan, of the U. S. Military Lines, of congestion of the brain. Age not stated.

QUOTATIONS OF TELEGRAPH STOCK.

CORRECTED BY JOHN HORNER, CASHIER, AMERICAN TELEGRAPH OFFICE, NEW YORK.

Western Union,....	\$100 shares....	76	Montreal,.....	\$40 shares,	115 gold
American,....	"	150	Nova Scotia,....	20 "	17 10
Russian Extension, "	"	30	Vt. & Boston,...	50 "	25
Ill. and Mies,....	\$50	par	Troy & Can Junct	50 "	25
East India,.....	"	"	Maine,.....	50	17 50

United States..... by the Company, \$100 share..... \$5 @ 90

DONATION TO UNION THEOLOGICAL SEMINARY.—Prof. S. F. B. Morse gives \$10,000 to found a Lectureship on "The Relation of the Bible to any of the Sciences—as geography, geology, history and ethnology; the vindication of the inspirations and authority of the Bible against attacks made on scientific grounds; and the relation of the facts and truths contained in the Word of God to the principles, methods, or aims of any of the sciences." He desires it to be known as the "Morse Lectureship," in honor of his "venerated and distinguished father whose zealous labors in the cause of theological education, and in various benevolent enterprises, as well as of geographical science, entitle his memory to preservation in connection with the efforts to diffuse the knowledge of our Lord and Saviour Jesus Christ and his Gospel throughout the world."

TELEGRAPHING AT SIGHT.—M. Eugene Godard, the French imperial aeronaut, has made some very interesting experiments in a method of telegraphing. By the aid of a single luminous point M. Godard sends messages to any part of the visible horizon. The experiments were tried at the Observatory and in the Rue de Puteaux. A lamp with a reflector was placed in the third floor of a house in that street, while a similar lamp was burning on the terrace of the Observatory. Within three minutes M. Godard sent a message of twenty words to the Observatory. The system is extremely simple—by means of screens, which, by concealing or allowing the light to escape, partial or total eclipses are produced. The screens are either of white or red glass. The colors emitted and the duration of that emission suffice to form an alphabet analogous to that of words used by the usual electric-telegraphs. The extreme simplicity of this method would be specially useful for signalizing at sea in time of war. Two corps d'armee could thus most easily communicate with each other. (This experiment was successfully tried some years ago between Boston and the lighthouse at Hull, Mass., by Messrs. F. H. Palmer and Geo. F. Milliken.—ED. TELEGRAPHER.)

FRENCH ACADEMY OF SCIENCES, MAY 15, 1865.—M. de la Rive presented a note "On the Conduction of Electricity by Metallic Vapors;" these, the author shows, have the same or nearly the same conducting power as the metals in the solid state. The metals were vaporized by the voltaic arc, and on endeavoring to produce the arc with points made of various alloys, the author observed that the alloy was always decomposed. To observe this phenomenon better he employed a plate of coke for a negative electrode, and the alloy for the positive, and then was able to collect the two metals, which deposited separately on the coke.

In another note M. de la Rive mentioned that a piece of crown or heavy flint glass through which a discharge from a large Ruhmkorff is passed, undergoes a permanent molecular modification in its whole extent, losing almost entirely its rotary magnetic power, and acquiring the properties of a crystalline body, or glass suddenly cooled.

NEW MODE OF OBTAINING ELECTRICITY.—At the last sitting of the Paris Academy of Sciences a paper by M. Loir was sent in by the Minister of the Interior, in which the author endeavored to show that a quantity of electricity was produced in large factories, and might be turned to account by means of the straps which generated it by their friction, in communicating motion to the machinery.

THE TELEGRAPH IN SOUTH AMERICA.—*To the Editor of The N. Y. Herald.*—I see it stated in a recent number of your paper that we are about to have connected the Republic of New Granada with the United States by a telegraph line, which is also spoken of as a novelty in South America. Permit me to say that there is at present at work a line of telegraph in the republic of Venezuela between some of the principal cities—i. e., from Laguayra to Caracas, to Valencia and to Porto Cabello. Bogota, the capital of New Granada, is within easy reach of Caracas, the capital of Venezuela. As there are numerous Indian tracks, sometimes used by travellers, between the two republics, there would be very little difficulty, then, in connecting these two important places; and from Caracas to Cuidad Bolivar, the capital of Venezuela, Guiana is but comparatively a short distance, while the British, Dutch and French Guianas are but little removed from Bolivar. From Laguayra to St. Thomas is but three days steam; to Trinidad twelve hours, and to Curacao six hours. You perceive, then, that the West Indies could be brought very near to America, and an American merchant at Demarara could advise with his correspondents in this empire daily if necessary, while from the constant communication between all of the West India Islands to St. Thomas, and from St. Thomas to Laguayra, the opportunities would be nearly as frequent as from Demarara. Allow me to add, from personal experience, that the Venezuelans entertain the most fraternal feeling for Americans, calling them compatriots, and that, if in any part of the globe, in Venezuela there is the fullest and highest appreciation and exercise of true liberty, while the spirit of progress animates the majority of the citizens.

TRAVELLER.

Major Eckert, long Superintendent of Military Telegraphs, has been appointed Assistant Secretary of War, vice Dana, resigned, and entered upon his duties on the first instant.

Testing the Telegraph Cable.

The London Telegraph in an article on the new cable for the Atlantic Telegraph gives this account of the manner in which it is tested:—"It seems impossible that there can be any fault in the Atlantic cable when the Great Eastern goes to sea. To say nothing of the tests applied to it at the manufactory, it is tested not alone after it has been taken on board, but during its delivery into the ship. As soon as a length is brought alongside, one end is connected with the coils already on board, and the other end with the instruments in the testing-room. The circuit is thus made through the whole extent of the coil—the portion on board and the portion alongside. The process of hauling in then commences, and the insulation is continuously observed. The instruments in the testing-room record the smallest deviation from absolutely perfect insulation. It will be understood that an insulation which shall be quite perfect, as an electrician understands the word, is not attainable. A piece of metal separated by means of the purest glass, and enclosed in the driest atmosphere that can be obtained, will, if charged with electricity, lose that electricity after a time. In speaking of insulation we must therefore be understood to mean an approximate condition; but the approximation in the case of the new Atlantic cable comes so near to perfection that this rough tarry rope is a scientific wonder.

"The last dying pulsation of the old Atlantic cable was forced through by means of a galvanic battery consisting of two hundred and forty cells. The submarine telegraph from London to Amsterdam is habitually worked with a battery of fifty cells and such a battery is commonly used for the other submarine lines to Europe.

"Signals have been repeatedly sent through more than 1,300 miles of the cable now on board the Great Eastern by means of one cell. Galvanic currents so feeble that they could not have been felt by the hand, and might have been passed harmlessly through a circuit completed by the operator's tongue can be used to convey messages along a length of cable that should very nearly stretch from London to St. Petersburg. Over needle instruments such as those in ordinary use for land telegraph a current from one cell would be powerless.

"To record such faint pulsations of electricity it is necessary to use Professor Thompson's mirror galvano-meter. This beautiful instrument consists of a mirror about the size of a fourpenny piece, made of microscope glass, and so thin that it weighs only a grain. On the back of this mirror a minute magnet is fixed, and thus supplemented it is suspended by a silken fiber in the heart of a coil of wire, so that any current passing through the coil deflects the magnet and the mirror along with it. A ray of light reflected by the mirror falls on a scale, distant about eighteen or twenty inches, and reveals its faintest movements. Different combinations of the movements represent the different letters of the alphabet, and thus the apparently erratic wanderings of a ray of light are made to convey intelligence. An instrument of this kind is constantly used to test the cable, as it is hauled on board; and if any fault had existed it could not have passed without detection. Up to this time, when there are on board the ship and alongside, one thousand nine hundred and seventy miles of cable, no fault has been discovered."

Construction of Telegraph Cables.

Any fact that contributes to the stock of our experience relative to the adaptability of certain materials for the construction of telegraph cables for submarine and subterranean purposes should be deemed valuable, and ought not to be devoid of general interest. A portion of one of the cables made by Messrs. Wells & Hall, for the Ordnance Select Committee, laid down at Shoeburyness, has been uncovered during the past few days, and a length cut out to ascertain its condition. After having been buried in the marshes for nearly four years, these wires are found to be electrically perfect. The India rubber is in high preservation, showing not the slightest sign of decay, but retaining the hard, clear, semi-transparent appearance of Para rubber in its natural state. One well ascertained fact is worth any number of theories; and having been favored with a sample of the cable, we are speaking from ocular proof. It is most satisfactory, too, as indicating at least the possibility of making India rubber wires proof against inherent deterioration. The felt, by which the exterior of the rubber is covered, is also intact; this is doubtless owing to its being a substance, to a certain extent, composed of India rubber, that material, when in a state of solution, forming a sort of ground upon which the cotton fibre is spread. A serving of tarred yarn, to afford strength and protection to the core, forms the outer part of the cable; but it appears this only lasts for a time. The hemp has completely rotted off, and these wires have had no other protection but the rubber, probably for the latter half of the period they have been down, and the perfect state of the rubber would seem to indicate that they did not require any other protection. At any rate, this effectually explodes the notion that tar is a preservative of hemp, when laid under ground or in water. It probably might be made more durable if saturated with a compound consisting mainly of the material which forms the core.—*Chemical News.*

A Boston paper says: "The telegraph office at the depot in Portsmouth, N. H., needs a little reform in ethics."

WAITING CALL.

TO "OS."

WAITING call sat I, and wondered
How it came; and while I pondered
Flashed the spark; the sounder thundered

"N. TW.—7"

Clicked the lever, "I, I, ready."
On despatches come, in steady,
Measured sound, the "voice" I know,
None but "Os" can write "just so."

Some collect, some paid, and wedded
To them half a dozen dead-head,
Office messages in profusion,
Quickly follow in confusion,
Now no more. "O. K." I send,
Did it reach the other end?

Aye! when God instructed nature,
To make man in form and feature,
Other wonders then formed he;
One, termed Electricity.

Earth's so full of't it can't hold it;
Realms of space cannot control it;
It doth baffle thoughts sublime,
As Eternity doth Time.

Human skill and keen invention
Hath decoyed its slight attention;
But 'tis not content to "settle."
Metal won't restrain its mettle.

Wonder if the stars conceal it?
Doth Et-ernity reveal it?
Doth it transmit calls from Heaven?
"Os" sing out on number eleven,
"N. TW.—7."

Washington, D. C., May, 1865.

BLITZEN.

WHEATSTONE AND BAIN.

(Continued.)

(From the Literary Gazette, 20th August, 1842)

CONDUIT ST., August 10, 1842.

"It is really, sir, with a feeling of indignation that I find myself once more called upon to defend myself against the unjust statements and actually false averments of Alexander Bain, who has again attempted to fix upon the minds of those of your readers who are not disposed to enter into a minute examination of the question at issue, the belief that I have appropriated to myself inventions to which he alleges himself entitled. As your space is doubtless as valuable as my time, I shall at once place before you the following documents in refutation of his charges; the first of which is, that the telegraph-clock and the printing-telegraph are not my inventions. I have already shown, in my former letter, that it is impossible for any person who sees and understands the principle and operation of my last electro-magnetic telegraph, invented in 1839, to doubt for a moment that both one and the other are direct and immediate applications of that invention. I shall, therefore, not press any further observations of my own, but present to your readers the conclusions arrived at upon this point by eminent practical men of science:

August 10, 1842.

"There cannot be the slightest doubt that Professor Wheatstone's printing-telegraph consists of his previously invented electro-magnet (this expression is used to distinguish the telegraph referred to from my magnetic-needle telegraph, invented in 1837) telegraph, with an addition—viz., that of an apparatus for printing the signals, which the original instrument only exhibits to view. When this addition is removed, the telegraph itself remains complete in all its details without requiring the least alteration. It is equally clear that Professor Wheatstone's telegraph-clock is merely an application to a particular purpose of his electro-magnet telegraph.

ROBERT WILLIS,

Jacksonian Professor of Natural and Experimental Philosophy in the University of Cambridge.

J. F. DANIELL,

Professor of Chemistry in King's College, London.

N. ARNOTT, M.D.

HENRY MOSELEY,

Professor of Natural Philosophy in King's College.

W. SNOW HARRIS.'

"The second charge is, that he communicated these inventions to me in August 1840. This, after what is above stated, can only mean that he communicated to me the applications in question of my invention at that time. It is evident that the proof or disproof of this turns entirely on points of date; and I am thus most fortunately relieved, by the introduction of unquestionable testimony, from a discussion which might be as tedious to your readers as it would be irksome to myself. I have already shown, that long before the date he has assigned, I had unreservedly and publicly conversed about those applications to many persons. In order that no doubt of this may remain, I subjoin notes from Mr. Martin, the eminent historical painter, and other gentlemen referred to in my first letter which define the dates at which I made the communications respecting the telegraph-clock to them. I have previously given the evidence of a workman of mine to the same effect. Absence on the continent prevents me at present from obtaining a similar corroboration from the astronomer royal.

30 ALBURNET TERRACE, NEW ROAD, July 18, 1842.

MY DEAR WHEATSTONE:—It was May 1840, when you explained to me at King's College, the proposed application of your electric telegraph for the purpose of showing the time of a distant clock simultaneously in as many places as might be required. I am able to speak to the time with tolerable accuracy, as it was a few days after we had dined together at the house of a mutual friend, which I have the means of knowing was on the 16th May, 1840; and I further remember, that when you were describing your plans I made the observation that "you proposed to lay on time through the streets of London as we now lay on water." I remain, my dear Wheatstone, ever faithfully yours,

JOHN MARTIN.

Prof. Charles Wheatstone, &c.

KING'S COLLEGE, July 18, 1842.

DEAR SIR: In the Spring of 1840, you frequently conversed with me on the subject of applying the principles of your telegraph to the purpose of making several dials, at any required distances, simultaneously show the time indicated by a single clock. At that time I was often in your room, and occasionally assisted you in your experiment. Your communications to me were made before the 17th of July, 1840, as at that period I left town, and did not return until the winter. Believe me, dear sir, yours truly,

Prof. Wheatstone, &c.

ERCHTHEINNE CLUB, July 21, 1842.

MY DEAR SIR: You described to me your plan for telegraphing time on the 20th of June, 1840, at King's College. I am able to recall the exact date, because a friend of mine, who had been invited to witness your experiments that day, was prevented from coming by an engagement to be present at a public breakfast given by the Directors of the Southampton Railway. The substance of our conversation was as follows: I was turning the handle of the rheotome, ("I have given this name to the wheel that makes and breaks the circuit, which in the telegraph is turned by the finger of the operator and in the application in question is carried round by the motion of a clock"), and watching the consequent motions of the dial, and I said,—"If the rheotome were turned round at a uniform rate, the signals of the telegraph would indicate time." You replied, "Of course they would; and I have arranged a modification of the telegraphic apparatus by which one clock may be made to show time in a great many places simultaneously." I expressed a curiosity to know how this was done; and you explained to me, by means of drawings, the plan of making and breaking the circuit by the alternate motion of the pendulum of a clock, so as to produce isochronous signals on any required number of dials. You showed me some other ways of doing it; but the plan of the pendulum particularly fixed itself in my memory on account of its simplicity.

I am, my dear sir, yours, very truly,

F. O. WARD.

The following note from Mr. E. Cowper, a gentleman well known to the mechanical world for his improvements on the printing-machine, refers my printing telegraph to June, 1840. This evidence is in addition to the document signed by Bain in August, to which I formerly referred:

ST. PETERSBURGH PLACE, BAYEWATER, July 29, 1842.

DEAR SIR:—At the time you mentioned to me that you had contrived an addition to your electric-telegraph, by which it could be made to print the letters instead of merely showing them, you asked me for some information respecting the mode of preparing the manifold writing-paper, which you proposed to employ, and on the best form of type for obtaining impressions with it. The note in which I answered these inquiries respecting your printing-telegraph, was dated June 10, 1840. I remain, dear sir, yours sincerely,

EDW. COWPER.

Prof. Wheatstone, F. R. S., &c.

As the only questions at issue are conclusively settled by these statements of disinterested parties, I might be justified in passing over your correspondent's assertions, which relate to circumstances subsequent to the date given; but as this might appear to be acquiescing in their truth, I will trespass on your space with a few observations.

It is quite untrue that Mr. Bain ever exhibited to me a model of an electro-magnetic clock, either before or after he was employed by me. He has not yet given the least proof of his having had in his possession, at the time he mentions, any such model; he has not yet adduced the testimony of any person who then saw it.

It is equally untrue that Mr. Bain showed me at the time he refers to, any model of an electric printing-telegraph. He had merely a model, if so rude a thing can be called a model, of a small part proposed to be added to my electric-telegraph, to effect a purpose for which I had before contrived far more efficient means.

(To be Continued.)

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PUBLISHED BY THE
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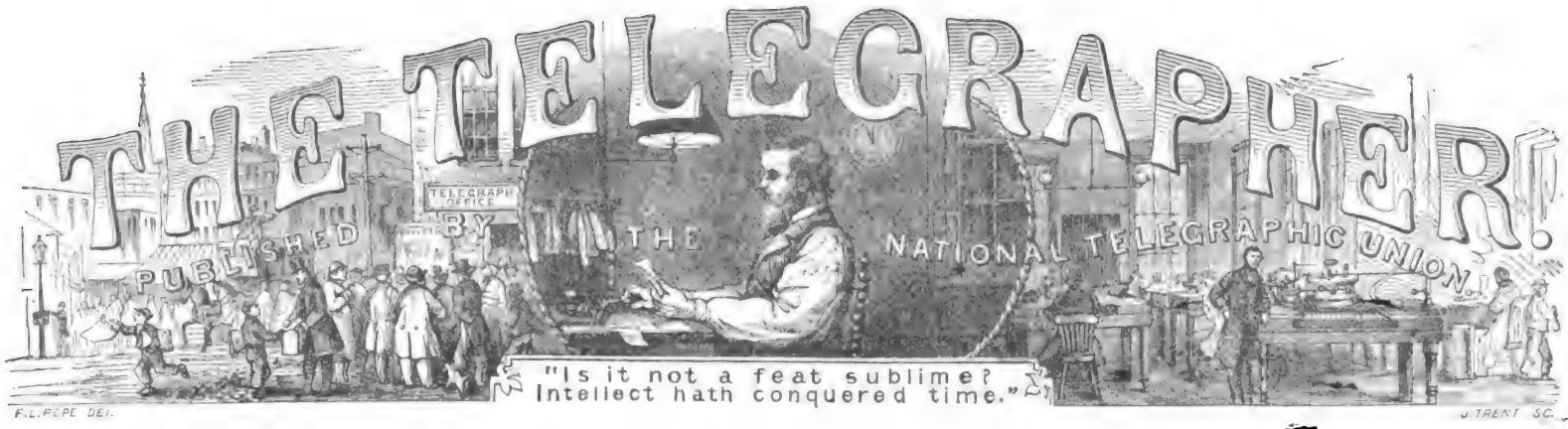
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Vol. 1.

New York, Monday, August 28, 1865.

No. 12.

THE TELEGRAPHIC REPEATER.

HICKS' REPEATER OF 1858.

In the February number (6) of *THE TELEGRAPHER* the writer of the series of articles upon the above named subject made mention of the original repeater of Mr. Geo. B. Hicks, patented in 1858, a diagram of which he promised to give our readers at some future day. The adjoining diagram is a realization of that promise.

The patent for this first invention of Mr. Hicks was issued August 10th, 1858. The general principle of this arrangement is similar to that of the button repeater, with this exception, that a self-acting circuit-changer *l*, is substituted for the "button," which, it will be remembered, required the constant supervision of an attendant.

This apparatus consists of two relay magnets, *M* and *M'*, two "sounders," *S* and *S'*, each with its local battery, *B* and *B'*, arranged in the usual manner, and the self-acting switch *l*, actuated by two extra magnets *LL'*. The main circuit of each line is broken and closed by the relay of the other instead of the "sounder," as in Farmer and Woodman's repeaters. While an operator on the eastern circuit, for instance, is writing, the self-acting switch remains in such a position as to prevent the opening and closing of the western relay from breaking his own circuit; but should an operator on the western circuit commence writing, a current from the local battery is thrown through one of the magnets of the circuit-changer, instantly reversing its position.

If the reader will kindly follow us we will endeavor in a few words to trace out the connections and thus show him the action of this truly wonderful invention.

It will be observed that the circuit of both the main lines are closed, causing the relay armatures to rest on the forward stroke, which also closes the circuits of the "sounders" *S* and *S'*, while the self-acting switch is in the position it assumes when the operator on the western line is working.

It will be observed, further, that the eastern main line enters at *E*, passing through the relay *M'*, thence through the insulated screw at the left hand end of the circuit-changer *l*, to the screw *e*, in the armature lever *a*, which connects with the U shaped spring *f*, thence to the U shaped spring *h*, and finally to the ground. The connections of the eastern local-magnet *S'*, and the self-acting switch magnet *L*, may be traced by the dotted lines commencing at the screw *b*', thence to the "sounder" *S'*, and the zinc pole of the local battery *B'*, from which it emerges at the platina pole, and runs thence to the lower end of the armature lever *a'*, which completes the local circuit through the eastern "sounder".

It will be observed that the local circuits, through both the circuit-changer magnets, are open at *b* and *c* and *b'* and *c'*. We will assume, for the purpose of illustration, that the operator on the eastern wire desires to communicate with the west. When he opens his key the armature of the relay magnet *M'* being released from the attractive force of the magnet is drawn back by the spiral spring, when the armature lever breaks the local circuit of the "sounder" *S'* at *b*' and closes on its back

stroke at *c'*, the circuit of the local magnet *L*, of the self-acting switch *l*', which being hung in the centre is readily attracted by either magnet when the one circuit is closed and the other open. This local connection may be traced by the dotted line beginning at *c'*, thence to the lever *a*, of the "sounder" *S*, through the screw *p*, through the local magnet *L*, thence to the zinc pole of the local battery *B*', through which it passes thence from its platina pole to the heel of the armature lever *a'* to the screw *c*', where the circuit is closed by the opening of the main eastern circuit. The closing of this last named local circuit brings into action the magnet *L*, which attracts the left hand end of the lever *l*, bringing the insulated screw in connection with the U shaped spring *h*, thus changing the course of the eastern main line directly to the ground by the wire *G*, instead of passing through the screw *e*, springs *f* and *h*. The reader will please to observe that the reversing of the lever *l*, brings the U shaped spring *h*' against the insulated end of the lever

l, thus changing the course of the western main wire through the insulated screw to the screw *c*', where, it will be remembered, the main western circuit has been opened by the back stroke of the armature lever *a'*, caused by opening the circuit of the eastern main wire. We now have the repeater so arranged that by manipulating the key of the eastern main circuit which releases the armature of the relay magnet *M'*, causing its lever *a'* to act in the capacity of a key by breaking and closing the western main circuit at the U shaped spring *f*'. By simply reversing this enables you to work east from the west.

The main batteries are left out of this diagram to avoid confusion. It is almost needless to say they are connected between the ground wires *G* and *G'* and the U shaped springs *h* and *h*'.

A MAMMOTH MAGNET.—Among the philosophical apparatus belonging to the New York Free Academy is an electro-magnet weighing 650 pounds, which has held seven men suspended at one time. This magnet was made by Charles T. & J. N. Chester, of 104 Center street, this city. It is formed of two round bars of the softest iron, each five inches in diameter and twenty-four inches in length, which are secured at one end by massive screws to a cross piece to form a U magnet. The bars are wound with 200 lbs. of No. 13 copper wire, insulated with cotton and shellac, laid on in eight equal lengths, making the finished bars about eight inches in diameter. The armature is a bar of soft iron weighing eighty pounds. A neat wagon is employed for moving the magnet about the room, but it is sometimes suspended from the ceiling by means of a block and tackle.—*American Artisan*.

A late tornado in Minnesota kicked up some queer pranks. It blew eight oxen over a river 800 yards wide. It took all the water out of a pond, carried it a mile and then set it down on Mayor Dorian's farm in the shape of a small lake. It blew a man's boots off. Another man's coat was not only blown short, but actually buttoned from top to bottom. One old lady went up like a balloon, was carried two and a quarter miles, and was finally landed astride a telegraph wire, where she was found by her grandson and relieved by a ladder. Judge Morgan says the wind not only carried off his dwelling-house, but his sub cellar and two wells. Some tornado, that.

THE NORTH ATLANTIC TELEGRAPH.

(Continued.)

ICE OF THE GREENLAND SEAS.

"Since my arrival I have seen the admirable remarks of Mr. J. W. Tayler upon the southern coast of Greenland, the results of his experience during seven years residence there. His opinions must be most satisfactory to you, and I am sure that all who are interested in the work must be grateful to him for having so freely given them.

"I perfectly coincide with his views with regard to the size of the icebergs frequenting the above coast and accompany the Spitzbergen drift ice; and as this bears upon my own opinion that no iceberg will ground in the channel of Julian-shaab Fiord, I think I may here explain my reasons for this statement. Having navigated the entire west coast of Greenland and into all the principal settlements, and having experienced a whole winter's drift in the ice, through Baffin's Sea and Davis' Strait, I have had occasion to remark and to gather all possible information upon the ice movements.

"Around the coast of Greenland, westward of Cape Farewell, there are two distinct descriptions, or rather kinds, of drift ice ever approaching but never meeting together. The first is the ice formed during the winter on the vast area of Baffin's Sea and the different channels from the Polar Seas westward of Greenland. This ice, called by the Greenlanders *the west ice*, often blocks up throughout the year the upper part of Melville Bay, and drifts constantly throughout the winter and early spring to the southward through Davis' Strait into the Atlantic. It seldom comes in contact with the coast of Greenland below the parallel of Disko and there is always an open sea between it and Greenland as far up as Holsteinberg, throughout the winter. The second is the Spitzbergen called also the "store ice," which as has been shown comes down the east coast of Greenland around Cape Farewell, and is carried by the current up the west coast at times even to the Arctic Circle, but by which time it is usually pretty much broken up, and if not entirely dispersed, the last remnants are supposed to return southward by Davis' Strait to the Atlantic—so near these two great ice streams approach, that vessels bound to the colonies have in the early spring passed up Davis' Strait with the west ice and the Spitzbergen ice on either hand. But as there are two kinds of oceanic ice, so also are there two distinct classes of icebergs, namely, the bergs from the stupendous glaciers far up the west coast of Greenland, and especially in Melville Bay:—these bergs attain an astonishing magnitude, but like the west ice which they accompany, or outsail, they do not come upon the west coast of Greenland below the same parallel, although in exceptional seasons of violent gales, such as the last, they may be blown in upon the land a little more to the southward; and I saw some of these *ice islands* last October aground, upon and near Tallert Bank, northward of Frederickshaab. The other icebergs are those which accompany the Spitzbergen ice, and may be said to follow its movements. They are launched from the glaciers far up the east coast of Greenland, and from those in the island of Spitzbergen, and besides being originally far less in their dimensions they are exposed during their long passage southward to the warmer Atlantic winds and heavy swells, and are proportionally reduced before their arrival at Cape Farewell. The bergs from the southern glaciers of Greenland are but small, and need scarcely to be taken into consideration, for as they must come out from the heads of the fiords, they surely would not take the ground in again entering the channel of the deepest fiords.

"With regard to the flotation of ice, it has been calculated that seven-eighths of a cubical mass of ice will be immersed, but icebergs being very irregular in their formation, and having usually very peaked and angular summits, whilst below the water they are smooth, rounded, and most frequently widened out. I think that icebergs are not found that draw more water than the proportion of six feet below to one foot of perpendicular height above the water. Therefore, in 150 fathoms of water (the very least found in the entrance to Julianshaab Fiord) an iceberg of an elevation above the water of 150 feet, or having an entire perpendicular height of 1,050 feet, will there be suspended above the ground, and such bergs are not to be met with in that place.

"The finest months in the Faroes are June and July, and in these months only should the cable be laid, and then about the last quarter of the moon, because the tides are greater at the full than at the change, consequently the neap tides and immediately after the last quarter, should be selected, as the currents are then inconsiderable. I have already given my reasons for recommending that the cable be laid from Iceland towards the Faroes, not only on account of the prevailing fogs on the east coast of Iceland, but also from the greater facilities for making the coast of the Faroes, and the opportunity that the comparatively speaking shallow water off the N. W. coast would give of shipping and buoying the cable in the event of a sudden gale of wind occurring at the time of laying it. The finest months upon the east coast of Iceland are also June and July, but I was informed that the weather is clearer earlier in the season, in the months of May and June—I suppose from the alternations of temperature being then less frequent. A few hours, however, of clear weather would always carry a ship beyond these mists, which usually

hang only on the land. With reference to Faxe Bay station, the west coast of Iceland is generally free from fogs, and the gulf stream which sets round Cape Reikia ness, and appears to keep up a continuous flow around Faxe Bay to the northward, passing out by Snæfellsnes, also appears to considerably affect the climatic condition of the west coast. Navigation is open all the year round, and the operation of bringing the cable here can be timed to the opportunities for departing from Greenland. A fine pyramidal beacon has lately been erected on the Skagen, and is of great assistance to navigators entering Faxe Bay from the southward.

"Before concluding, it is proper to state that the voyage was one surrounded with much peril, on account of the succession of gales and the extraordinary quantities of ice found in the Greenland seas; never within the memory of man has there been so much and so long a continuation of ice upon the Greenland coasts as during the past year." * * * *

"Having thus presented to the Society some of the most valuable and interesting portion of Captain Young's report, I have only to observe that the result of the recent survey has been to remove from my mind the apprehensions which I previously entertained in common with many others, as to the extent and character of the difficulties to be overcome, in carrying a line of telegraph to America by the northern route.

"Prior to the dispatch of the surveying expedition we had no knowledge of the depth of the seas to be crossed, with the exception of the few soundings obtained by Colonel Shaffner in 1859, and our information as to the nature of the shores of Greenland in regard to the requirements for a telegraphic cable was equally small.

"These points are of vital consequence to the prospects of the North Atlantic Route, and the survey has placed us in possession of satisfactory particulars respecting them. The soundings taken by Sir Leopold M'Clintock will be a guide in the selection of the most suitable form for the deep sea lengths of the cables, while the information furnished by Captain Young will direct the construction of the more massive cables to be laid in the inlets of the coast. It is not necessary to determine upon the precise landing places and other points of detail in connection with the enterprise at the present time, but the promoters of the undertaking have received ample encouragement from the survey, and from the testimony of competent and experienced voyagers and sojourners in the countries to which the line is to be carried, to warrant them in proceeding with their labors with renewed vigor and confidence."

SURVEY OF THE LAND SECTIONS,—WITH REMARKS UPON THE CLIMATE, PEOPLE, &c.,
BY DR. JOHN RAE, F.R.G.S., &c.

Dr. Rae then read the following, viz.:—

"When the promoters of the North Atlantic Telegraph were about to fit out expeditions for the purpose of examining a practical route, *via* the Færöes, Iceland, Greenland, and Labrador, by which to form a telegraph communication between England and America, I volunteered my services for the land portion of the survey.

"In this paper I will give a brief account of my observations, and of information obtained from reliable sources regarding the nature of the lands travelled over and their suitability for the objects of the telegraph.

"After a passage of fourteen days from England in the screw yacht 'Fox,' we arrived, on the 3d August, at Thorshaven, the capital of the Færöe Isles. It contains about 900 inhabitants.

"On the day following, Colonel Shaffner, Lieutenant Von Zeilau (Danish Commissioner), and myself, accompanied by two Faroese as guides, commenced a journey over Stromoe, our destination being Haldervig, a village near the northern extremity of that island.

"Our course for the first two miles was W.N.W., over the shoulder of a hill (named Klubbin), the height of which about fifty feet below its summit was 1,048 feet; we then turned more to the northward until we reached the high land immediately south of Kalbakfiord, 1,408 feet above the sea level. The walking round the head of this fiord was fatiguing in consequence of the unfinished state of the path. At the end of five hours we reached the top of the pass overlooking Kallefiord, having an altitude of 1,179 feet. * * *

"Next morning I ascended a hill named Skarling, said to be the highest on Stromoe. Strong squalls of wind, with heavy rain changing into snow as we neared the summit, made the climbing difficult. The barometer indicated a height of 2,506 feet. * * *

"Our active guides led us by the shortest but the most difficult of two routes, the highest point of which was 1,711 feet above the sea. We arrived in the afternoon at Qualvig, a village having 132 inhabitants, where we passed the night.

"Next morning we traced back the more level but longer route between Qualvig and Kollefjord. We found its highest point to be 1,275 feet at 2½ miles distance from Qualvig. The hill is not too steep for loaded ponies. We hired some of these excellent little animals for the purpose of testing their qualities. They were strong, sure footed, and carried with ease a man weighing over fifteen stone.

"From Qualvig to Haldervig, the distance is nine miles, and the path lies close to the shore all the way. We found the 'Fox' at Haldervig.

"The formation of the island of Stromoe is almost wholly basaltic, with an occasional thin stratum of red tuffa. Opals are found in the hills north of Kollefjord.

"No difficulties of importance present themselves to the placing of a telegraph line over the route examined, which is about twenty-seven miles in length. At three points of the line some expense would necessarily be incurred in improving the paths, so as to make them more easy for loaded ponies to travel over. These places are, the ascent of the high grounds north and south of Kalbakfjord, the descent to Kollefjord, and the height between Kollefjord and Qualvig."

"The inhabitants generally appear to be well educated and religious, and so fully aware of the advantages they would derive from a telegraph being carried through their island, that they would use their best efforts to protect it from injury."

"Labor is comparatively cheap, the average day's wages being about 1s. 4d sterling. Our guides were well pleased to receive 2s. each per day."

"The climate is not well suited for the growth of grain, but small quantities of barley and oats are raised, and a few potatoes, turnips, and other vegetables are cultivated. The live stock of the farmers are sheep, horned cattle and ponies, sheep being the principal and most valuable productive source. The population of Stromoe is upwards of 2,600. The chief exports are wool, woollen goods, eiderdown, fish, ponies and oil. The inland transport is, principally, by pack horses."

"Two small bays, the one a short distance to the South of Thorshaven, the other at Haldervig, having been examined by Captain Allen Young, were found well adapted for the landing of a telegraph cable; and the route examined by me overland forms the connection of the projected telegraph."

"The sound separating Stromoe from Ostero offers great facilities for the transport of materials, as it is navigable throughout the whole length, with the exception of about 100 yards near Qualvig, for vessels of ordinary size. The arms of this sound, namely, Kalbakfjord, Kollefjord, and Qualvig Bay, afford good anchorages and approach at three points to within a quarter of a mile of the projected route."

"The 'Fox' reached Berufjord, on the east coast of Iceland, on the afternoon of the 12th, and anchored in the harbor of Djupivogr, near the entrance of the fiord. From this place the Land Expedition resumed its labors to travel across the island to Reikiavik. About fourteen horses, and two men, to act as guides and pony-drivers, were required. We had two very zealous auxiliaries in the persons of Mr. Weywadt, the Danish merchant, and Lieut. Von Zeilau, both of whom exerted themselves to procure the necessary assistance and accommodations for the journey. Only eight ponies, exclusive of those of the guides, could be obtained at prices varying from 2l. 12s. to 5l. 10s. Hoping to complete our number of ponies on the way, we left Djupivogr on the afternoon of the 15th. With the exception of the guides, our party was the same as that when travelling across Stromoe. Our path ran along the south shore of Berufjord, and was rough and stony. * *

"It was difficult to make an early morning's start. Our horse-drivers were active and willing enough, yet we could seldom get away before eight or nine o'clock. A lamb was bought for 2s. 3d. sterling. After taking an observation with the barometer, we resumed our journey—and ascended to the tableland west of Berufjord by a series of four steps. The path which is formed among stones, gravel, and earth, might be much improved by a very little labor. Two observations for altitude were obtained. The first about halfway up, giving 891 feet, the last, near the top, 1282 feet, at which the latitude $64^{\circ} 49' 3''$ N. was also observed.

"From this point, our path lay nearly due north, for 8 miles, to a small lake 426 feet above the sea level. * * *

"Our course for five miles was north, along the slope of a hill. We then travelled west until crossing the ridge, when we turned to the south-west, and reached in a short time Hallormstadr on the banks of Lagar Fliot. Hitherto we had been surrounded by a dense fog, which we emerged from on descending the hill. We here allowed our horses to feed for an hour, and an observation with the barometer gave the altitude of our position 528 feet, that of the river which was upwards of a quarter of a mile distant being 90 feet lower. This river has its source in the Vatna Jokull, and the muddy and white color of its water indicate its glacier origin. As far as we could see to the northward the river widens into the form of a narrow lake having little or no current. This was the case we were told for 30 miles or more. As we rode to the southward along the stream we passed through a grove of small birch trees, many of which were from 16 to 18 feet in height. At four miles above Hallormstadr the lake-like river ends, and four miles further up we came to the ferry. The river was here about 170 yards wide, the current strong, and the water so deep from the recent rains that the horses had to swim when crossing. * * * *

"Taking the direct route to Valthiofstad, it may be reached in one day from Berufjord, as the distance is about 26 geographical miles, and we learned that the road was not bad. * * * *

(To be Continued.)

THE ATLANTIC CABLE.

SHERBURNE BARRACKS,
WASHINGTON, D. C., July 12, 1865.

To the Editor of The Chronicle:

DEAR SIR: I have read in your edition of the 11th instant, a very interesting letter written by Colonel Shaffner, relating to the Atlantic Telegraph Cable.

Colonel Shaffner states that "There is not one step advance in the science of electricity since 1858 to justify any other hope than that which might have been entertained at the laying of the other cable."

I must beg to differ. In June, 1861, after I had joined our army, letters patent were granted to me for a new and useful telegraphic invention. Before the war I had been for years a practical telegraphic operator, and during this time had worked all of the different methods of telegraphing then or now used in the United States. I passed one year in Newfoundland, and although not present at the working of the first Atlantic cable, I am fully acquainted with the electrical phenomena attending those experiments, through friends of mine, eye witnesses and practical telegraph men.

While perfecting my invention and experimenting, it was with a full knowledge of the obstacles encountered by the electricians of the first cable, from "inductive retardation," "earth currents," &c. My desire was to perfect an instrument which would obviate these disadvantages, and I think I succeeded. I am confident that any current, however generated or induced, magnetic currents from the earth, or generated by the action of salt-water on the iron wire, will, instead of retarding the operations, assist them.

Colonel Shaffner's statement respecting the working of a wire from New York to San Francisco is perfectly correct, and is known to be so by all the members of the telegraphic fraternity. This 4,000 miles of wire was divided into different circuits, and all operated at the same time by mechanism. The machines necessary to do this were introduced at intervals along the whole line. In the summer of 1863, while at home, I made some experiments over the wires of the American Telegraph Co. I worked my instruments from Boston to New York 230 miles, with one cup of a Grove battery, the Morse lines were then using eighty cups. In a protracted rain storm I worked the same circuit with two cups of battery, the Morse then using one hundred. I worked over a circuit of 1,800 miles of air-line with forty cups of battery, being unable to obtain a greater length of wire, or to reach the battery to reduce it. "Resistance," or a poor conductor of electricity, was introduced into the circuit, the effect being equal to adding a greater length of wire, with the forty cups. I worked over 1,800 miles of air-line, through a pail of water and also through the bodies of seven human persons grasping each other's hands, and did the work well. I put into the circuits all the "resistance" that was available at that time. I have never been able to get a sufficient length of wire to give my instruments a thorough test.

If the Atlantic Cable is ever successfully laid I have not a doubt that it can be easily worked at the rate of twenty words per minute; nor have I a doubt that a single circuit of 4,000 miles can be worked well.

Wounded early in the war, I have been either totally disabled or in the army since May, 1861, and my invention has remained almost unknown.

Now that Peace has blessed our country, and the soldier returns again to civil pursuits, I trust to brush the cobwebs from my long neglected invention, and that it will be known among men.

Very respectfully, your obedient servant,

CHARLES H. BURD,
First Lieut. 12th Regt., V. R. C.

(Burd, you're absurd. Do you think telegraphers now-a-days are fools to believe all this bosh and nonsense? Were you ever a bedfellow of Baron Munchausen? if so, why didn't you put on steam and tell a bigger li-ttle tale than he used to? You know very well you never worked a printing telegraph instrument in your life, and as for the pail of water and seven human persons, you might just as well have said the Erie Canal and a drove of elephants. We hardly think you succeeded in gulling the "indulgent public." You better let your invention rest in its burial place beneath the over generous cobwebs.—ED. TELEGRAPHER)

Is the Atlantic Cable Simply a Galvanic Battery?

To the Editor of the Washington Republican:

As the Atlantic cable is now occupying the attention of the press and the public, will you allow me to present, through your columns, a theory regarding it to the savans?

It is a well-known fact that gutta-percha is not a perfect non-conductor of electricity, ranking below shellac, glass, sealing wax, &c. Consequently, there is a certain amount of connection between the inner copper wire and the outside iron covering, through the gutta percha coating. This point established, we have all the materials for a galvanic battery, the salt water and the two metals separated by a partial non-conductor.

Is it not possible that the former cable was simply an elongated galvanic battery, and that the reversal of its polarity by the immense batteries produced the electric effect at the receiving station, which was believed to be waves or impulses from the sending station? This theory would account for the gradual giving out of the former cable by the consumption of the material, which was shown to be nearly destroyed when attempts were made to raise it—it not being of sufficient strength to be raised to the surface in comparatively shallow water.

QUEST.

THE TELEGRAPHER.

United States Telegraph—Proposed Extension to the Pacific.

We publish the following letter simply as an item of interest to the fraternity, taking no part in the controversy. We shall publish in our next Mr. McKaye's reply, which was followed by another letter from "A United States Stockholder," which has not elicited at this writing any rejoinder from Mr. McKaye.—ED. TELEGRAPHER.

To the Editor of The N. Y. Tribune.

SIR:—I am in receipt of a circular from James McKaye, President of the United States Telegraph Company, informing me that it is proposed to construct a telegraph line to the Pacific to form a part of the United States lines; that I "have the right and privilege to subscribe for and take one share of said (extension) stock for every two shares now held by you (me) in this Company, to be paid for at the rate of sixty-six and two-thirds of a dollar per share."

At first sight that looks very tempting.

But the circular does not state what the proposed line is to cost; nor how much extension stock in the aggregate is to be issued; nor indeed how much is to be issued at a nominal price to or in behalf of the scheming managers, in addition to what we have the "privilege" to subscribe and *pay* for; nor does it give *any information* to enable us to judge whether the stock will or will not be worth a farthing.

These facts aroused my suspicions, and led me to seek such information in other quarters, which I publish for the benefit of my fellow-stockholders.

The amount of stock to be issued for the Pacific Line, as we have said, is not stated.

It may be, and I learn that such a suspicion exists, that while we, stockholders outside the "ring," are expected to furnish all the money to build the line, a still larger amount of stock is to be issued to the members of "the ring," for which they are to pay nothing or next to nothing.

If so, this is a startling fact. It naturally suggests references and inquiries, embracing the whole management of the United States Telegraph Company from the beginning. Suppose the holders of only \$4,000,000 of the United States Stock (the present aggregate is considerably more) take the bait and use their "privilege" to subscribe, that will give the managers thirteen hundred and thirty odd thousand dollars in cash—the line, at a most liberal estimate, will not cost so much by several hundred thousand dollars. I am satisfied from information picked up in various quarters—information obtained with much labor and difficulty, but yet believed to be trustworthy—that the programme is to stock the extension, when built into the United States Company, at from four and a half to six millions of dollars.

On this basis, we who furnish every dollar of money to build the line would have \$2,000,000 of stock at the cost of 66½ per cent.; while "the ring" would have from two and one half to four millions of precisely the same stock free of cost, and several hundred thousand dollars of money besides. In other words, we, uninitiated stockholders, would pay the cost of the whole line and probably not less than half a million of dollars more. But on "dividing" with "the ring" they would get more than a half of the stock representing the line; they would get several hundred thousand dollars in cash—all at a nominal cost; and we, innocent subscribers, would get a minority of the stock at a cost of between \$1,300,000 and \$1,400,000 in cash. That is the kind of entertainment to which this craftily drawn circular invites us. For one I beg to be excused.

My inquiries have led me to a knowledge of facts bearing upon the general management of the United States Telegraph Company, which are exceedingly significant, and which, carefully kept from those most interested in them, should be brought distinctly before every stockholder.

According to Low's Telegraph and Railroad Directory, page 153, the United States Telegraph Company's wires cover the same territory, substantially, as those of the Western Union and American Telegraph Companies. Yet the gross earnings of these antagonistic Companies for the last half of 1864 (according to the small returns of the proper officers of the respective Companies, as recently stated in *The New York Herald*, were as follows:

	Western Union and American Telegraph.	United States Telegraph.
July,	\$246,875	\$28,040
August,	298,202	27,724
September,	315,568	31,111
October,	329,604	28,666
November,	310,708	29,993
December,	290,665	27,700
Total,	\$1,791,415	\$174,134

From the best evidence the case admits of, it is proved that the U. S. Telegraph Company's lines cannot be maintained and operated for anything like the gross receipts here sworn to.

The Company have three hundred offices (see Low above quoted), and they pay large rents and high salaries.

The gross receipts would not give \$4 a day to the offices on an average.

Saying nothing about the salaries of sixteen superintendents and other high paid officials, and expense of keeping the lines up, yet the managers pretend to be paying liberal "dividends" from net profits.

Low's Directory states the capital stock at the time of its publication at \$8,500,000,

and says, "last semi-annual dividend of 4 per cent. paid February 1, 1865." The gross receipts for six months ending January 1, 1865, (see above), were \$174,134. "Last semi-annual dividend" of 4 per cent. on \$3,500,000 is \$140,000, leaving a balance of \$34,134, to maintain "20,000 miles of wire," mostly in common roads, to pay the rent of three hundred offices, the salaries of hundreds of officers, operators and other employees, and all other running expenses for six months!

The "dividend" of four per cent. was actually made. But it is not perfectly clear that if it came from "profits" it must have come from some other "profits" than those of the Company, whose gross receipts are not sufficient to pay its current expenses.

Note the fact, in this connection, that the circular before referred to promises, in behalf of the U. S. Company, "seven per cent. interest" on our subscription to the extension stock, "until notice shall be given that the *scrip is ready* to be delivered!" It is already made clear that the Company cannot pay it from their earnings. It is equally clear that "the ring" can well afford to pay us back *three or four per cent. of our own money* and call it interest, and that they will have hundreds of thousands of our money left to divide among themselves. They will have no other funds from which to pay "interest" than the money we pay in on our subscriptions; and with that they may well promise to be liberal—as a means of inducing us to subscribe.

One of the constructors of the lines owned by the United States Company has retired with a nice fortune, the proceeds of his sharp bargains with us credulous stockholders. So long as we can be gulled by the payment of "dividends" or "interest" doled out to us from the money we ourselves pay in, just so long can "the ring" go on building lines and making fortunes even though the lines when built shall never pay the cost of running.

Unless some such game were intended, the circular would have set forth the gross amount of stock to be issued, and would have given us some definite and trustworthy assurance that the money solicited of us is to be honestly used for the common benefit of the subscribers, instead of being so disposed of as to benefit only those by whom the scheme was concocted.

A UNITED STATES STOCKHOLDER.

"Electric Signals and the Tyne Time-Guns."

DUNCLIFFE, April 14, 1865.

SIR:—In this communication, contained in yesterday's *Scotsman*, the following passage occurs: "Many may remember Bain's huge electric clock in Hanover St., Edinburgh, which sometimes played such mad tricks, indicating every conceivable hour at all hours of the day, and which often gave too much cause for the joke that it went 'like lightning.'"

Now, as this is a depreciation of one of the most original discoveries of our day, by one whose name will assuredly go down to posterity as amongst the foremost of the electricians this country has produced—the discoverer of the currents of the earth, and the inventor of the first printing telegraph—I think it ought not to pass unnoticed, more especially as the statement alluded to is the reverse of the truth. It is impossible that it could be true. I watched the invention from the first—recollect the clock in question from the time it was first put up; and the utmost that could, with truth, be said against it was that, like all other clocks, especially those exposed to the action of the atmosphere—such as large church clocks, &c.—it required to be occasionally regulated. The motive power—electricity—is as much a mechanical power in its operation as the spring or the weight of an ordinary clock. I have had one of Mr. Bain's clocks for about twenty years, and it is impossible for any ordinary clock to go better or with more regularity, and this entirely from a battery sunk in the ground. Changes in the atmosphere do not affect the current, and so simple is it in construction that it keeps excellent time for years without requiring to be cleaned.

Like many others who have benefitted mankind, Mr. Bain received but scant justice, and died in a foreign land. I knew him well: kind hearted and unassuming he was; and I am sure there are many yet in Edinburgh who could corroborate all that I have stated.

I am, &c.,

B.

["B." is mistaken in supposing that any attempt was made to depreciate Bain's clock. The writer of the article, from intimate and undeniable personal knowledge, stated a fact applicable to a particular case, but not to the principle generally, which is sound enough. "B" will observe that the terms *mechanical power* and *electrical power* were not used in the remarks on the clock.—ED. *The Scotsman*.]

[Mr. Bain is not dead. He was in this city a few months ago, and has gone to Scotland.]—ED. TELEGRAPHER.

The London Engineer says: "The express train from Berlin, Prussia, that arrived at 7 P. M. on the 23d of May, at Dortmund, was struck by lightning in the neighborhood of Guttersloh. The metallic signal-line fixed on the top of the carriages, and extending the whole length of the train, served as conductor of the electric fluid, which injured one of the stokers so severely that his limbs were paralyzed and some fears were at first entertained for his life.

GENERAL OFFICERS

OF THE

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J. C. UPHAM, RECORDING SEC.,
P. O. Box 2,407, Boston, Mass.

KENNETH MCKENZIE, COR. SEC.,
Care Pacific R. R., St. Louis, Mo.

OFFICIAL.

BOSTON, July 21st, 1865.

To all Officers and Delegates of the N. T. U.:

You are hereby notified that, pursuant to vote of the Convention of 1864, the Delegates to the General Convention of the National Telegraphic Union for 1865, will assemble in Chicago, Ill., on Monday, the fourth day of September, next, at two o'clock, P. M. The Director of the Chicago District will give due notice of the place of meeting.

JAMES C. UPHAM, Recording Secretary, N. T. U.

DISTRICT PROCEEDINGS.

ST. JOSEPH DISTRICT.

The regular monthly meeting of this District was held on the 9th inst. Meeting called to order at 3 P. M., District Director in the chair—eight members present—minutes of last meeting were read and approved. The election of new members being in order, the name of R. W. Crampton, of the Hannibal and St. Joseph R. R. line was proposed and rejected.

District Treasurer's Report for quarter ending March 31st:

To Balance in my hands, last report	\$1 05
" Amount received for fines	25
By balance on hand	\$1 30
	\$1 30 \$1 30

The Treasurer's Report for this quarter was unavoidably delayed. We have lost three members, two leaving the District voluntarily, and one discharged. We have received one member, Mr. Logan, transferred from Omaha District.

On motion, meeting adjourned.

S. P. PEABODY, District Director and Treasurer.

E. B. McDILL, District Secretary.

PHILADELPHIA DISTRICT.

The Regular Meeting of this District was to be held on the first Sunday of the month; but no quorum being present, they adjourned until Sunday, July 16th.

The adjourned meeting was held at the appointed time, the Director presiding. Roll called and the proceedings of June Meeting were read and approved.

The Chairman announced that nominations for Delegates and District Officers were in order. The following names were proposed for District Director: H. C. Robinson, Thos. S. Flattery and Jos. Greene; E. D. Morton was also proposed, but being under the required age, was not eligible to the office.

Jos. W. Dyer was proposed for Local Director, on the interpretation of that office as given by THE TELEGRAPHER. Mr. G. W. Porter, J. Sisson Clarke and E. R. Blackman were nominated for the office of District Secretary.

The Delegates nominated were Jas. Merrihew, R. J. Black, J. S. Greene and Geo. W. Snyder.

Mr. Buckwell spoke of the great number of delinquents in this District, and urged that they be expelled in accordance with the requirements of the Constitution.

Mr. Partrick took the same grounds and said our meetings must to great extent be informal, so long as such persons were allowed to hold their seats.

On the suggestion of Mr. Black, the meeting decided to postpone final action until next month.

There being no further business, the meeting adjourned until the first Sunday in August.

R. J. BLACK, District Director.

M. D. BUCKWELL, Secretary, *pro tem.*

OMAHA DISTRICT.

Minutes of meeting of members of the Omaha District National Telegraphic Union, held Sunday, July 16th, 1865:

Meeting called to order at three o'clock, P. M., the District Director in the Chair.

On motion, F. Drake, Jr. appointed Secretary, *pro tem.*

The Director stated that the minutes of the last meeting were not at hand.

On motion, Mr. Bell appointed to the chair, while reports of District Director and Treasurer read, both of which unanimously accepted.

Mr. Bell in chair, Mr. Lehmer presented names of Mr. Kit Dougherty and Mr. H. Lithgow, of Laramie, for membership, for the consideration of meeting

Motion made by Mr. Lehmer, but those gentlemen not being present motion withdrawn.

Mr. John W. Ford, of Junction, nominated for membership by Secretary, *pro tem.*

The gentleman being present and properly vouched for, was unanimously elected a member.

The Director administered proper oath.

Messrs. Dougherty and Lithgow, of Laramie, being now present, Mr. Lehmer renewed his former motion. The gentlemen unanimously elected members.

Meeting proceeded to discuss the election of a delegate to the Convention to be held at Chicago on the 4th of September. After considerable debate, without arriving at any definite result, meeting adjourned to meet on the last Sunday before the first Monday in August.

FRANK LEHMER, *District Director.*F. DRAKE, Jr., *Secretary pro tem.*

SACRAMENTO DISTRICT.

Following are proceedings of regular meeting of the first California District, held Sunday, June 11th, 1865.

Meeting called to order at 4 P. M. Fifteen members present. After reading and approval of minutes, the report of the District Treasurer was presented, showing:

Total receipts	\$48 75
Cr.	
By Expenses (books, printing, &c.)	\$8 75
" Express chgs. from N. Y.	4 75
" Draft favor J. Patrick	23 00 36 50
Balance on hand	\$12 25

Nine members had, as yet, failed to remit the initiation fee.

The following persons were elected members:—Geo. H. Shaw, proposed by Mr. Hoag; J. W. Brown, of Stockton, proposed by W. R. Yontz; E. L. Pearson, of Sacramento, proposed by Mr. Allen; and J. W. Sweeney, of Watsonville, proposed by Mr. Shearer.

Mr. Jaynes presented his resignation as District Treasurer, a lack of time preventing him from attending to the duties of the position. On motion, the resignation was accepted, and Mr. J. P. Hodgdon unanimously elected his successor.

Mr. Urquhart moved that a vote of thanks be tendered to Mr. Jaynes for the "skill and energy" he had shown in representing the interests of the union. Carried unanimously.

After a few remarks by the Dist. Director on the condition of the District notifying members of the receipt by him of the Constitution and By-Laws of the Union from New York, and other matters of local nature, the meeting adjourned to meet the first Sunday in July, at 4 P. M.

F. JAYNES, *Dist. Director.*C. P. HOAG, *District Secretary.*

BOSTON DISTRICT.

Special Meeting, called to order at 8.25 P.M., July 12th, 18 members present. The Director announced that Mr. Gerritt Smith declined the nomination as a candidate for Delegate to the Convention. Mr. D. C. Roberts was nominated in place of Mr. Smith.

Mr. J. W. Duxbury declined the nomination as Substitute for Delegate, and Mr. W. P. Eayrs was nominated in his stead. Various proposed amendments to the Constitution and acts of the last Convention, were proposed and adopted as a part of the instructions for the delegates of this district. The following resolutions were proposed and unanimously adopted:

Resolved, That this District having censured Mr. E. F. Leighton, by a misunderstanding of the facts in the case, do hereby most cheerfully make the *amende honorable* and declare him free from all charges and blame whatsoever.

Resolved, That the Delegates to the National Convention from this District are hereby instructed to urge upon the Convention the necessity of placing THE TELEGRAPHER and its editor in a more independent position than they have heretofore held, and to this end our Delegates shall urge the selection of a proper person to act as editor of the paper, who shall give a sufficient guarantee for the conducting of THE TELEGRAPHER solely and entirely in the interest of the Union, and for the interests of each and every member of the profession.

A communication from Mr. Mat. Davin was read, asking to be re-admitted as a member in good standing, and expressing a desire to pay all dues which have accrued.

On motion of Mr. T. A. Davin, the rules were suspended in order that the applicant should be voted for at once. He was unanimously elected as a readmitted member upon payment of back dues. Mr. J. E. Wright was also unanimously re-admitted upon the same conditions.

At 10.30 meeting adjourned.

We have given only a synopsis of the doings of this meeting owing to the late day at which it was held. The meeting was one of the most spirited and interesting we have yet had.

The Regular meeting, which should have been held July 5th, was adjourned without action owing to the non-attendance of a sufficient number of members to form a quorum.

THE TELEGRAPHER.

Regular annual meeting. Meeting called to order at 8:30 P.M., August 7. The District Director being absent, Mr. T. A. Davin was chosen to act as Chairman of the meeting. The Secretary also being out of town, J. C. Upham was chosen Secretary *pro tem.* At the request of Mr. Davin Mr. Stover took the chair. The reading of the minutes of the last meeting was, by suggestion of Mr. Davin, dispensed with.

The Secretary read the report of the District Director, which was received with great applause; and, on motion of Mr. Roberts, it was ordered that 75 copies of said report be printed by the District for distribution among its members. Mr. Albee moved that the report be referred to a committee of four (consisting of the Director's Council and two members appointed by the chair), who shall consider the suggestions made by the Director and report thereon. Motion agreed to. The Chair appointed Messrs. J. C. Upham and G. H. Albee to act upon said committee, in conjunction with the District Director's Council. The Secretary read a brief report from the District Director's Council, which was, on motion, referred to the committee appointed to consider the Director's report, and also ordered to be printed with the report of the District Director.

The Secretary was then instructed to express to the Director and Secretary for the expiring term the thanks of the District for the able and faithful manner in which they have performed the duties of their respective offices.

Elections of members being next in order, Israel A. Sherman, of the American Telegraph Company's Office in Boston, and Thomas Roche, of the U. S. Telegraph Company's Boston office, were proposed and unanimously elected to membership.

A letter from H. S. Martin, District Secretary, positively declining a re-election, was then read by the Secretary *pro tem.*

The election of Delegates to General Convention, and of District officers for the ensuing year coming next in order, was then held, with the following result:

For Delegates to Convention—H. W. Wheeler and J. W. Stover.

Substitute Delegates—D. C. Roberts and D. D. Devereux.

District Director—H. W. Wheeler.

District Secretary—D. C. Roberts.

The declaration of the vote was held with enthusiastic applause. Messrs. Stover and Roberts were in turn called up and responded in a few words befitting the occasion, and thanked the District for this expression of confidence.

The Chairman asked for information respecting the Relief Committee, who had presented no formal report. Remarks were made by Messrs. Stover, Roberts, Labonte and others, respecting this Committee and their duties, called out by reference to Mr. McKey's illness, resulting in Mr. Reese and Mr. Roberts being appointed to wait upon McKey and ascertain his condition, and report the same to the District. Mr. Stover then read a letter from President Hammond, addressed to the Director of this District, giving some welcome information in regard to the present condition and future prospects of the Union.

A suggestion made by Mr. Stover "that the plan of organization of the Union be somewhat changed, introducing different degrees of membership," &c., elicited much rambling informal discussion, resulting in no definite action. Mr. Davin made some remarks on the subject of election of General Officers at the coming Convention, and finally moved that our Delegates be requested, if they deem it politic, to name J. C. Upham as a candidate for the Presidency of the Union, at the Convention, which motion, after a disclaimer from Mr. Upham, was agreed to, with the understanding that the Delegates are free to exercise their own discretion in the premises.

At 11:15 P.M., on motion, meeting adjourned.

J. W. STOVER, *Chairman pro tem.*

J. C. UPHAM, *Secretary pro tem.*

DETROIT DISTRICT.

Regular monthly meeting held 8 P. M., August 2d. Meeting organized by Mr. C. Fox taking the chair. Minutes of last evening read and approved. Allen C. Kennedy was elected member of the Union. James G. Kendall of New York District, was enrolled as member of this District. On motion, Mr. A. Fox, time for holding regular monthly meetings was changed from the first Wednesday to the first Sunday in each month. There being no further business, adjourned to next Monday, August 7th.

Regular Annual Meeting, held August 7th, organized with District Director in the chair. Secretary being absent, E. R. Barnes was chosen Secretary, *Pro tem.* Minutes of preceding meeting read and approved. Several letters were read by District Director on the subject of Commercial Telegraphic Colleges, all of them expressing great disgust of these humbugs. District Director's report read, accepted and placed on file. Mr. Joseph Hoops was unanimously elected member of the Union. Meeting proceeded to vote for a Delegate to the Convention, which resulted in the election of Mr. T. W. Priest. Mr. A. Fox, chosen as alternate, could not attend. C. Corbett and T. W. Priest were nominated for District Director, which resulted in the re-election of T. W. Priest. Hugh Irvine and C. Corbett nominated for District Secretary and Treasurer, first ballot being a tie, second one taken and Hugh Irvine elected District Secretary and Treasurer. G. B. Cowlam

elected Local Director. A vote of thanks was tendered to Mr. Priest, District Director, also to Mr. C. Corbett, District Secretary and Treasurer, for their services during the last year. District Director was authorized to purchase, with the funds of the District, a new set of books for the use of the District officers. Meeting instructed its Committee to withhold further controversy with B. & S. until after the Convention. There being no further business, adjourned to meet on call District Director.

T. W. PRIEST, *District Director.*

E. R. BARNES, *Secretary, Pro Tem.*

MAINE DISTRICT.

Regular meeting of this District called to order at 8 P.M., 7th inst. Mr. G. S. Silsby, of Winterport was elected District Director, Secretary and Treasurer. J. H. Milliken, Portland, elected Local Director for Portland office. Mr. C. H. Sawyer, of Portland, elected Delegate to the Convention.

C. H. SAWYER, *District Director and Secretary.*

WASHINGTON DISTRICT.

The twentieth regular meeting of this district was held on the evening of the 7th inst., at eight o'clock. Fourteen members present. The committee appointed to procure a meeting room reported their success in securing an excellent one nearly opposite the American Telegraph Company's office. Before the close of the meeting a tax of one dollar was levied on each member of the District for furnishing the room and paying the first month's rent.

Messrs. G. C. Maynard and J. A. D. McKenna of the War Department office; S. B. Roberts, E. Alex. Scott, W. H. Wilson and Chas. H. Baker of the U. S. Military Telegraph, and Sam'l. J. Hoffman of the Am. Telegraph Co's. office were elected members.

The annual report of the District Director was read, giving a detailed statement of the doings and condition of the Union during the past year, &c.

The District, it appears, has grown from 23 to 72 members in the year, and has contributed to the National Treasury between three and four hundred dollars.

With a view to increase the funds in the District Treasury a resolution was adopted appointing a committee of five to inquire into the expediency of giving an excursion for its benefit.

The following officers and delegates were elected by the District for the ensuing year:

District Director—Fred. W. Royce.

District Secretary—M. Marean.

District Treasurer—P. A. Stidham.

Delegates to the Convention—Wm. H. H. Clarke, Wm. H. Young, James D. Thurston. Alternates, Thos. Morrison, T. N. Laneys and Fred. W. Royce.

Fifty-six votes were cast, several members being unable to vote on account of distance from the city.

A few unsuccessful motions to adjourn were finally decided, when the novelty of a new ballot box had ceased. Adjourned at 10 P.M.

Wm. H. H. CLARKE, *Dist. Director.*

M. MAREAN, *Dist. Secretary.*

ALBANY DISTRICT.

The second annual meeting of this District was held on the evening of the 7th instant.

Meeting called to order at 10 P.M. by the District Director, 40 members were present in person or by proxy. Minutes of the last meeting read and approved.

The Director read his annual report on the condition of the District, which showed it was organized August 1st, 1864, numbering 19 members, since then one had been expelled for improper conduct, four transferred to other Districts, and two transferred from Boston and Utica to this District. He also stated that the District is in a flourishing and prosperous condition, now numbering 42 members, all of whom, with two exceptions, are in good standing.

He says "the telegraphers in this vicinity are becoming convinced of the importance of the 'Telegraphic Union,' and are rapidly falling into line, not a meeting passing without the admission of members, among whom are some of the oldest and most influential operators in the State. I am proud to claim, in behalf of our District, the honor of having started two flourishing Districts, one at Utica and one at Rochester, our own members forming the nucleus in each case, and I hope that during the coming year we will add one more to the number."

He concluded by returning thanks to the officers and members of the District for their cordial support during his official term.

The District Treasurer, Mr. Way, read his annual report, showing the amount remitted to the General Treasurer for initiation fees, dues, &c., to be \$214 50.

Mr. S. C. Rice, Local Director, announced the application of Thomas Stuart, Jr., of the U. S. line, Troy, for admission. Mr. Stuart was unanimously elected.

The election of officers being next in order, the Chair appointed Messrs. S. E. Mayo and P. B. Delaney, Tellers, and W. C. Hadley, Clerk. Each member present, as his name was called, deposited his ballot. Those not present were repre-

sented by friends, who, upon presenting satisfactory credentials, voted for the absentees.

After receiving the report of the Tellers, the District Director announced the election of the following gentlemen:

A. L. Whipple, District Director.

S. C. Rice, Local Director.

H. L. Waterbury, District Secretary.

John Gay, District Treasurer.

A. L. Whipple and S. C. Rice were chosen Delegates to the Convention.

On motion of P. B. Delaney, the meeting adjourned to meet again on Monday evening, 28th inst., for consultation, prior to the departure of the Delegates for Chicago.

A. L. WHIPPLE, Dist. Director.

M. L. MORGAN, *Dist. Sec'y.*

NOTE.—Mr. Geo. Ford, of the United States Company's office, this city, was elected a member at our last meeting.

BALTIMORE DISTRICT.

The annual meeting was called to order at 5 P.M. on August 7th.

Mr. Riley in the Chair, Mr. Crumbacker Secretary *pro tem.*

Motion to dispense with reading of minutes of previous meeting, adopted.

District Director's report read and ordered to be placed upon the minutes.

On motion, the meeting proceeded to ballot for officers for the ensuing year. The following having received a constitutional majority were formally declared elected.

District Director—J. B. Yeakle.

District Secretary—C. S. Shivelor.

District Treasurer—H. C. Showacre.

Local Director—C. B. Dameron.

Delegates to Convention—Messrs. Wilson, Ways and Yeakle.

Motion adopted declaring the three candidates receiving the greatest number of votes, after those elected, alternates to supply the places of those unable to attend the Convention,

On motion meeting adjourned at 7 o'clock to Sunday afternoon, August 20.

J. J. G. RILEY, *Chairman.*

C. W. CRUMBACKER, *Secretary pro tem.*

Report of the District Director of Baltimore District for the year ending July 31, 1865:

Members Elected	64
" Transferred to this District	1
Total	65
Expelled	2
Transferred to other Districts	2
Total	4
Present number of members in this District	61
Amount remitted Jas. Partrick, Treasurer, up to April 30th	\$262 72
Unpaid dues	23 40
Total	\$286 12
Am't to the credit of local fund, April 30	22 85

The innumerable difficulties attending the formation of this District, (which I presume are still fresh in your memories) have, I am happy to state, been overcome. And it is due to you to say, that it is mainly through the great interest you have manifested in the success of the "Union;" and the hearty co-operation I have received at your hands during my official term, that the District is in its present healthy and prosperous condition as to members and financially.

Accept my sincere thanks for the kind spirit manifested toward me the past year, and be assured you have my heartfelt wishes for the continued prosperity of this District, and the ultimate success of the Union.

Respectfully,
A. WILSON, JR., *Dist. Director.*

CHICAGO DISTRICT.

Minutes of regular meeting. District met 2d inst., pursuant to adjournment, and was called to order by the Director. Minutes of the last meeting were read and approved.

The District Treasurer submitted a report which was adopted, showing a balance in his hands of \$11 60.

Geo. H. Stewart, of Chicago; Chas. B. Bureh, of Racine; C. D. Thomas, of Cincinnati; W. H. Vaughan, of Wilmington; and W. G. Kirkman, of Chicago; were elected members of this District.

The District then proceeded to nominate candidates for delegates to the Convention. The following gentlemen were nominated: C. E. Crandall, of Galena; A. D.

Dibble, of Elkhart; E. B. Chandler, A. H. Bliss, Geo. C. York, Geo. Makle, W. F. Allen and E. P. Porter, of Chicago; and R. B. Woolsey, of Champaign.

Mr. Cord moved that the four gentlemen receiving the highest number of votes be declared elected delegates, and the four receiving the next highest number be declared alternates. Carried.

The following nominations for District officers were made:

For District Director—A. H. Bliss, E. B. Chandler, Geo. Makle, Geo. C. York.

For District Secretary—Geo. Makle, I. N. Bradley, D. B. Burnett, W. F. Allen.

For District Treasurer—H. C. De Pue, T. O. Cord, F. S. Kent, R. A. Sanford, W. A. McElroy.

Motion of Mr. Bradley that a committee of three be appointed to make necessary arrangements for an entertainment to be given to the Delegates to the Convention, was, on motion of Mr. Lindley, amended to read a committee of five, including the District Director. Motion as amended carried, and Messrs. Makle, Wild, York and Kent appointed Committee.

Meeting then adjourned till Monday night.

ELECTION MEETING.—The District met 7th inst., pursuant to adjournment, and was called to order by the Director.

The Director announced the object of the meeting to be the election of Delegates to the Convention, and District officers for the ensuing year. Messrs. Hawkins and Bliss were appointed tellers. The names of Messrs. Porter and Crandall were, at the request of those gentlemen, withdrawn from the canvass. The result of the first ballot was as follows: A. D. Dibble 42, E. B. Chandler 39, A. H. Bliss 32, Geo. C. York 31, Geo. Makle 19, R. B. Woolsey 16, F. S. Kent 7, W. F. Allen 5, C. E. Crandall 4. The first four mentioned were declared elected Delegates and the four next in order alternates. The balloting for District officers resulted as follows: For Director A. H. Bliss 37, scattering 16. For Treasurer T. O. Cord 28, scattering 16. For Secretary Geo. Makle 32, scattering 10.

On motion of Mr. McElroy, the officers elect were declared the unanimous choice of the District.

J. E. Ranney, of Peoria, and C. H. Smith, of Aurora, were elected members of this District.

On motion of Mr. Bliss, the Committee of Arrangements for the entertainment to be given to the Delegates to the Convention, was authorized to issue invitations for the same. Adjourned.

E. B. CHANDLER, *Dist. Director.*

GEO. MAKLE, *Dist. Sec'y.*

PHILADELPHIA DISTRICT.

The regular monthly meeting of this District was held at the St. James Hall, August 6th.

The District Director announced that, owing to the absence of the Secretary, reading of the proceedings of last meeting will be dispensed with.

The Director then announced that the election of local officers and delegates to the Convention would now commence.

Messrs. E. R. Blackman and C. D. Middleton were appointed tellers. The following is the result for local officers:

James S. Greene, District Director.

Wm. Dyer, Local Director.

George W. Porter, District Secretary.

M. A. McSorley, Local Treasurer.

The meeting decided to elect four delegates to the Convention, to guard against the possibility of the first two being unable to attend.

Messrs. R. J. Black and J. D. Maize were chosen delegates; Wm. Dyer and E. R. Blackman as substitutes.

Mr. J. S. Greene offered a resolution changing the time for meeting back to Monday evenings, instead of Sunday afternoons as heretofore. It was finally passed after much excitement and discussion.

Mr. J. Sisson Clarke offered the following resolution, which was adopted unanimously:

Whereas, Some misapprehension prevails as to the purposes and objects of the National Telegraphic Union; and

Whereas It is desirable that such misapprehension should be removed, and that a more perfect understanding should be had of what are the aims and objects of our association; therefore, be it

Resolved, that our delegates to the Convention be, and are hereby instructed to suggest to that body the propriety of so changing the reading of the Constitution as that it shall more clearly and distinctly define and set forth the purposes and objects of the Union.

Mr. F. W. Davis offered the following:

Resolved, That this District return its sincere thanks to Mr. Robert J. Black for the able and efficient manner in which he has presided over the meetings for the past year. Unanimously adopted.

The meeting was in session for two hours, and much interest was manifested by all present.

W. D. BUCKWELL, *Sec'y, pro tem.*

ROBT. J. BLACK, *Dist. Director.*



MONDAY, AUGUST 28, 1865.

THE TELEGRAPHER.

With this issue **THE TELEGRAPHER** completes the first year of its existence. Besides being the first *telegraphic newspaper* ever published in this country it is the first telegraphic journal which has lived to celebrate its first birthday.

Born in spite of objection, and reared in doubt, it has survived its most trying period, and will now continue on in the even tenor of its way till the end, which we feel confident the fraternity will aid to keep far distant.

We shall not, even with our good success in view, boast of the probabilities of the future. The future success of this paper hangs almost alone upon the continued patronage and friendship of the fraternity at large.

If the Convention adopts the suggestions which are to be made to it next month, the new and increased appliances which can then be brought to bear, will make **THE TELEGRAPHER** cheaper by making it better and more valuable.

No one, we think, cares to have the price per year reduced, but will agree with us that the surplus funds should be used to increase the value of the paper. If at the same price we can furnish twelve or sixteen pages *twice a month*, no one, we take it, will grumble, provided of course the subject matter continues good.

Messrs. Delegates, show your wisdom and do not let the bugbear Expense prevent you from being generous to yourselves and the world. Judicious expenditure is economy. Penuriousness is false economy and to be avoided.

THE TELEGRAPHER has not only supplied a want in the telegraphic world, and put to blush those who objected to its publication on the lame plea of the possible expense, but has proved successful beyond the expectations of its most sanguine friends, and has turned a handsome little sum,—the balance of the year will reach nearly \$400—into the Treasury of the Union, notwithstanding the want of time and inexperience of its editor.

Friends and readers, we return you our warm thanks for your many kind words and favors, and ask for their continuance with the same generosity. As we bow out the first year of our life we smile upon you all thankfully and hopefully.

THE ATLANTIC CABLE.

At this writing the Atlantic Cable has not been landed upon the shores of the fog-bound isle. It is confidently hoped that within a week—we write early in the month—we will hear of its safe arrival at Heart's Content.

The Cable has been written about so much, the theme seems trite and commonplace; yet there is a vast amount of disbelief, and not a little ignorance upon the subject, neither of which do we expect to remove or enlighten, but as a journalist it is our duty to say something upon the anxious subject.

The brief existence of the first cable destroyed the faith of the unprofessional, and strengthened the doubts of the doubting, and increased the number of croakers. The enterprise is too great for us to believe that the men of talent who have it in charge are chasing a phantom.

No one but He who maketh the storm and careth for the sparrow can foretell its success or failure. As far as human foresight could prepare, everything is arranged for success; it is, therefore, idle to say it will be a failure any more than a success. With the first cable fresh in our memory we confidently look for the successful laying of the present one; that the present cable will work, although slowly, has been proved, but how long it will continue to work no human tongue can say.

The first cable worked for twenty-five days, and as this is far superior to that, let us be generous and hope it will last long enough to prove that it *will* work, although its bed be unsafe. We have published letters from parties more or less interested in other routes, who endeavor to foretell the result of this great undertaking.

The first we have is from Col. Tal. P. Shaffner, who probably knows as little about the success of the cable as the rest of us, certainly no more. We place more dependence upon the faith of those English electricians who have experimented for years with submarine cables than upon his prognostications.

When it is taken into consideration that Col. Shaffner is suing for a chance to lay cables by the North Atlantic route, his prognostics melt to nothing. Lieut. Burd's soap-bubble hardly merits the ink we have already wasted upon it. "Querist's" query is worthy of consideration, yet we are inclined to the opinion that Messrs. Glass, Elliott & Co. have not hazarded their money and reputation upon a sieve holding water.

The other party in the field is Mr. S. F. Van Choate, who is in a similar boat to the one in which Col. Shaffner endeavors to ride. Mr. Van Choate wants to take his cable-idea (or contract) to France via the Western Islands and Portugal. This, as in Col. Shaffner's case, lessens the force of his "I told you so!" If the Atlantic cable fails these gentlemen will be on the high road to fortune, if not to fame, but if it works, their words will be swallowed up by the great event, and their struggle for patronage will be lengthened till the demand for greater facilities brings them or their schemes again into favor. Mr. Van Choate has recently published a pamphlet (of which more anon), a copy of which a friend has loaned us. This pamphlet is more remarkable for what it doesn't say than for what it does. His manner of working a cable is not very lucid. He mentions a printing instrument he has invented for working a cable. We would like to ask him what cable he has ever worked with his instrument? and if he really believes his instrument will work an air line even? He also suggests a self-adjusting repeater encased in a spherical shell and sunk in mid-ocean. Now we consider this idea so beautiful as to be almost poetic, but are forced to ask the gentleman if he has ever seen or ever expects to see a *self-adjusting repeater*?

We have spoken of Messrs. Shaffner and Van Choate in this article, because these gentlemen have set themselves up as foul-weather prophets, neither of whom do we believe have had experience in long line deep sea telegraphy, and are about as capable of prejudging the cable as others upon this side of the Atlantic; certainly no more if not less. The success of the cable will be no loss to them, except, perhaps, delay, but its failure will be their success. But of these gentlemen more hereafter. Many telegraphers still contend no messages were ever transmitted through the first cable. This ignorance and disbelief will do very well for outsiders, but ought not to be said of the fraternity. Mr. Prescott, in his History of the Electric Telegraph, gives copies of everything which passed through the cable during the short time it worked. From this book we learn that during twenty days *one hundred and twenty-nine messages* were transmitted from Valentia to Newfoundland, and during twenty-three days *two hundred and seventy-one messages* were sent from Newfoundland to Valentia, making a grand total of 400 messages, which passed through the cable. This statement is verified on oath by the electricians at either end before Mr. Robert B. Campbell, who was then our Consul at London. The first complete message which passed was from Newfoundland to Valentia on the 12th of August, 1858, at 5.35 p.m., and consisted of twenty-five

words. The last received through the cable was a part of a message from Mr. Saward, London, to Mr. C. W. Field, on the 31st of August, 1858, and consisted of eighteen words.

As further proof that the cable *did* work, we may call to mind the Queen's message to the President, notice of the collision of the Europa and Arabia off Cape Race, the complimentary message from the Lord Mayor of London to Mayor Tieman, also the countermanding of an order for the movement of troops by the British Government to the Commandant at Halifax. And further, it was our good fortune to converse with one of the electricians from Newfoundland, who showed us a portion of the despatch to Mayor Tieman just as it came from the register at the office at the Bay of Bull's Arm.

We have many enquiries as to how the cable is worked, that is to say, what means or instruments are employed in communication. It is as follows, as we understand it: There is not a continuous battery current through the cable, but the signals are made by throwing a wave of electro-magnetic electricity through the cable, which deflects the needle of a very delicately adjusted and a very sensitive galvanometer. This needle is reflected in a mirror to enable the operator to detect the slightest movement. A combination of a number of the deflections stand for certain words or sentences. The operator on duty at the needle has his right hand upon a Morse key with which he writes out on a register in another part of the room the combinations received, which are translated by the copyist and then despatched to their destination. The register used is arranged upon the French plan, the characters being printed in heavy black dots and lines.

"Tam O'Shanter," whose letter we published in our last issue, seems to have a twist in his nose, which effects his vision. In referring at length to our remarks upon the meaning of the word "offices," as used in the Constitution, he seems to write for the defense of the Boston District only, seeming to forget that this District would be obliged to have over *forty* Local Directors, which is rather a large crowd for one District Director to manage, particularly as his duties exceed those of any other one office. We feel safe in advising the members to live up to the spirit of the law in preference to the simple *letter*, but as our opinions are not yet laws, the Boston District is not obliged to conform to them. If, however, the Boston gentlemen cannot be happy without the *letter*, it will be a very easy matter to change the word "offices," so as to give Boston a large number of Local Directors. As the duties of the *District* Director are continuous and about twice those of the Local, we wonder "Tam" doesn't cry for more.

"Tam's" *regrets* at our great indiscretion evidently got the better of his judgement, for while lecturing us he *dictates* to the Convention who ought to be elected to *something*, but to what he seems too modest to say. We quite agree with "Mister O'Shanter" that "the Recording Secretary is one of our bright ornaments," and confess we have an affection for him as one of the founders of the Union, and as a gentleman which we cannot and do not wish to overcome, but that is no reason why we should not express our preference for Messrs. Hammond and Young.

"T. O.S." quite underrates the judgement and good sense of the delegates when he intimates they will be led by the nose by our few words of preference. These gentlemen will doubtless do as they think best notwithstanding the voice of Boston, the pen of Mister "Tam O.S." and our own opinion. We consider our right to express an opinion beyond question, and our opinion is but that of one person and Boston has the right to wholly disregard it if she sees fit, which we are sure the Convention will do if it thinks proper. Our opinion has perhaps more weight than "Tam's" from the fact that we have a large correspondence and a somewhat better chance to be posted in matters in general than "Shanter," Esqr., and besides we think THE TELEGRAPHER is looked to for some indication as to who should bear the honors next year.

Our advice to "Tam" is to read our article again and be sure we aimed our trenchant blow only at the Recording Secretary's head. We expressed an opinion for the re-election of the President and Vice-President *only*. All the other officers are likely to be changed. The objection to Missouri's having three general officers within its limits is of little account.

We beg leave to assure "Tam O'Shanter," Esqr., that we shall at all times express our opinion upon any subject but do not urge him to accept it as "facts not fancies." "Our only (object and) desire is to see the officers fairly distributed among the best men."

The attention of the delegates is respectfully called to the resolution referring to the editor of THE TELEGRAPHER published in the proceedings of a Special meeting held by the Boston District. We will simply say it but anticipates a paragraph in our annual report.

TELEGRAPHIC MISCELLANEA.

THE ILLUSTRATED LONDON NEWS publishes in its issue of July 8 an excellent map of all the telegraph lines—completed and projected—on the Eastern Continent; also several pictures of the laying of the Persian Gulf Cable. Price 36c.

THE AMERICAN AND THE UNITED STATES COMPANIES opened their respective offices at the New Gold Board in New Street, this City, on the 27th ult. The first named Company have also opened an office under Delmonico's, in Broad Street.

BY THE STEAMER from Liverpool, July 18th, we learn that Sir Charles Bright, the celebrated electrician, has been elected to represent a borough of London in the next Parliament.

THE PHILADELPHIA INQUIRER of the 31st ult. says: "New facilities for telegraphing will be opened in a few days by the Bankers' and Brokers' Telegraph Co. The wires are completed from Portland to Washington, including Baltimore, New York, Boston and intermediate places."

THE LAYING of the Atlantic Cable is called a great undertaking. We hope it will not prove a *buried*.

PRIVATE MILES O'REILLY edits a first rate weekly paper in this city, called *The Citizen*, which we advise every one to buy, as it is very readable reading. In his issue of the 15th ult., Miles lets his sub., "The Correspondent," who occupies a column every week slashing into the papers, *The Nation* in particular, speak of THE TELEGRAPHER as follows:

"The industrious gentlemen connected with the telegraph companies have issued a neat and effective sheet devoted to magnetic interests."

"I am obliged to admire and denounce the telegraph operator every week. His industry astounds me: his literalness I blaspheme. He says of me that I deserve the last epithet for the first quality. So we are quits. And he publishes an excellent paper, and in it I find Cranch's fine poem of 'The Telegraph.'"

Curb this fellow Miles, and scold him for not putting THE TELEGRAPHER in *italics* as we delight in printing *The Citizen*.

Why does he want to blaspheme us hard-working fellows? Is it because when lazy or weary he has sent to the office a careless or garbled mess of doubtful news and we have sent it *verbatim*, as is our duty, and it has appeared next morning in print literally? 'Tis too bad for him, but tell him Miles 'twas the cruel printer, he does everything wrong and naughty; we are only messenger boys. Tell your sub., to admire us, Miles, for we pity his misfortunes. A long life to your paper, also Miles, and to your sub, if he'll be good.

AT THE ANNUAL MEETING of the Stockholders of the Western Union Telegraph Company, held in Rochester, July 26th, the following persons were elected Directors: Meers, Hiram Sibley, George H. Mumford, Henry R. Selden, O. H. Palmer, Isaac Butts, D. A. Watson, Samuel Welder and F. Delano of Rochester; J. H. Wade and Anson Stager of Cleveland, Ohio; Ezra Cornell of Ithica, N. Y.; John Butterfield of Utica, N. Y.; H. H. Shillingford of Philadelphia; R. S. Burrows of Albion, and P. McD. Collins of San Francisco. The board was subsequently organized by the election of the following officers: J. H. Wade, President; G. H. Mumford, Vice-President; O. H. Palmer, Secretary and Treasurer.

A MERITED COMPLIMENT.—The well-known and popular telegrapher, Mr. Charley Moore, who for the past year has been in charge of the Baton Rouge office, has received the appointment of Chief Operator in the New Orleans office. Capt. Fuller has made a judicious selection, and we will warrant that the business is properly transacted under his direction.—*True Delta*.

Mr. Moore deserves the best possible notice from the press of New Orleans for his faithful and efficient services in their behalf. He is a competent and attentive operator, and the business of the New Orleans office has so increased as to demand the careful and assiduous attention which Mr. Moore can give to business, and the expertness for which he has won a reputation.—*N. O. Times*.

MR. M. L. WOOD, General Superintendent of the United States Co.'s. lines is manufacturing an insulator, of which we append the following description:

The insulator itself is a plain glass one about $3\frac{1}{4}$ inches in length and fitting the pin or bracket to the depth of about 2 inches. The insulating surface is about $1\frac{1}{2}$ inches in breadth, and the outer form such as to distribute as nearly equally as can well be done the thickness of the glass, so that the annealing may be the more perfect, and yet so that if a stone be thrown against the lower portion the fracture will not be likely to occur at the point of contact with the tie wire.

The diameter across the open end (inside) is $1\frac{1}{4}$ inches. A collar $1\frac{1}{2}$ inches diameter turned upon the bracket $2\frac{1}{4}$ inches below the top will protect the upper half of the insulating surface from dashing storms and sleet, thus avoiding the exposure to which the broad bottomed insulator is subject, both from breakage and storm, and rendering the whole arrangement as perfect, all things considered, as a glass insulation unprotected can well be. The cost is about one cent extra each.

The United States Company are now putting up a wire between New York and Boston with this insulator.

THE TELEGRAPHER.

THE FIRST VOLUME OF THE TELEGRAPHER will not be completed for some few months yet. We are forced to this decision for these two reasons: Want of time to prepare the last pages and the thinness of the volume. After the first, each volume will be completed either every year or every six months.

A large number of our subscriptions expire with the present number. All those of our readers who subscribed for one year commencing with No. 1, and those for six months, commencing with No. 7, will please renew by enclosing us \$2 at once.

MR. G. B. PRESCOTT is preparing material for another—the third and an improved edition of his History of the Electric Telegraph.

SAILED.—Mr. M. C. Laven, lately in the employ of the W. U. Company in this city, sailed for Europe in the Hibernia on Saturday the 12th inst. He intends to be gone three months, and will visit England, Scotland, Ireland, France and Italy.

The California steamer of the 16th inst. took out two telegraphers: J. L. Lillis for San Francisco, and Mr. Geo. E. Fawcette for Aspinwall, U. S. C.

RETURNED.—Mr. Thomas P. Scully has returned from Panama, U. S. C., where he has been stationed for the last year in the employ of the Panama Railroad Co.

APPOINTMENTS.—General Order No. 60, under date Engineer's Office, American Telegraph Co., July 28th, announces the following appointments:

Geo. F. Milliken to be Manager of the Boston office.

H. H. Ward Superintendent Metropolitan (N. Y. city) District, to take charge also of the Long Island line.

P. H. Shaughnessy to be Chief Operator Southern wires, New York office.

John Horn, Jr., Chief Operator in charge Board of Brokers ("Bx") office this city.

F. J. Grace, Chief Operator in charge Broad Street, ("Gx") office this city.

E. S. Keep, Chief Operator in charge New Gold Board ("Ax") office this city.

Resignation of J. L. Lillis of the Board of Brokers office, accepted with thanks of the Company for his long and faithful service.

The United States Company has placed Mr. Thos. Dennis, formerly in charge of its old Gold Board office, in charge of its office at the new Board.

Mr. Angus Fox, formerly of the W. U. Co.'s Detroit office, has been appointed Superintendent of the D. & M. R. R. Co.'s Telegraph lines.

Mr. W. H. Kelty, for ten years past in charge of the Telegraph office at Frederick, Md., has been appointed Postmaster at that place, at a salary of \$2,500 per annum.

A letter from Cleveland informs us we were misinformed in regard to the appointments on the Atlantic and Great Western Railway lines, published in our June issue. Mr. R. C. Healy's headquarters are at Leavittsburg, O., instead of Meadville. The appointment of Division Operator of the First and Second Divisions of the A. & G. W. Railway lines has not yet been made.

The following appointments have been made by the Bankers and Brokers Telegraph Co.:

PHILADELPHIA OFFICE.—Jos. W. Dyer, formerly a printing operator, to be Manager; M. D. Buckwell Chief Operator, and Jas. Kennedy Cashier.

NEW YORK OFFICE.—L. H. Smith, Manager, and M. H. Redding, Chief Operator.

All of the last named were formerly in the employ of the American Company, the first three in its Philadelphia, and the last two in its New York office.

H. C. Showacre, formerly of the United States Co.'s office in Baltimore, to be Manager of the Baltimore office.

A letter from Mattoon Ill., Dated July 23rd, requests us to caution District Directors, members of the Union, and Telegraphers at large, against one A. C. Barker, who is charged with the embezzlement of nearly \$100 from the Toledo and Wabash R. R. Co., while in charge of its telegraph office at Wabash, Ind.

In a letter from a "Canadian" to *The Tribune*, upon the annexation question the following sentence occurs:

"By Canadian I mean a native of Canada or Great Britain, and not such quasi subjects of Her Majesty as O. S. Wood, an employé of the Montreal Telegraph Company, and a native of New York, who had the audacity to write a letter to Mr. Potter, which was read at the Detroit meeting, giving his views as those of the Canadian people."

Although Mr. Wood may not be a "native" he is considered a pretty nice sort of a gentleman, and having lived a number of years on both sides of the "Line," ought to be able to speak knowingly upon the annexation question.

THE BANKERS' AND BROKERS' TELEGRAPH COMPANY, office No. 14 Broad street, New York, having completed their line from Washington to New York, laid on the 10th inst. across the North River, at Fifty-ninth street, two of their new submarine cables. The line is constructed throughout in the most substantial and enduring manner. No cost has been spared to make it the model line of the country. Mr. Charles Ottinger, the Company's engineer, assisted by Mr. Butterfield, who has charge of the cables, successfully laid the two cables—one in thirteen and the other in sixteen minutes—with their new and splendid scow and fine large reel made for this

purpose, the laying being done in fine shape. This Company is composed of some of our best men. Mr. William Callow, the President, is an old Baltimorean, formerly of the firm of E. Pratt & Co.; Mr. G. Hilton Scribner, of New York, is the only resident director at present. These cables are from the works of the Bishop Gutta Percha Company of this city, and were made with great care, under the direction of Samuel C. Bishop, the general agent of the Company. They were thoroughly tested and found very perfect. From the agent of the Company we learn the construction of these cables is as follows: "The Conductor is three No. 19 copper wires twisted together, rope fashion, making one conductor equal to No. 14 wire gauge. The insulation is of pure Gutta Percha, laid on in three coatings making nine-sixteenths of an inch diameter outside. The bedding is of 2-yarn Manilla, laid on spirally, having two coverings reverse way, and the armor is fourteen No. 4 galvanized iron wires laid up spirally. The whole cable weighs about 13,500 lbs. (near 7 tons) to the mile.

"The materials and workmanship of these cables, are very superior, and we think cannot be surpassed, if equaled anywhere, even in England. They are of very great strength, and will successfully resist hauling up by almost any ship on the river. The insulation is extra heavy, and the bedding having two layers of Manilla yarn reversed, affords a fine protection for the gutta percha. We find Manilla yarn without tar far superior for durability in water to tarred hemp. We have seen tarred hemp entirely decayed and rotten in salt water, after three to four years time, while Manilla yarn, without tar, was as fresh and good, and strong as when laid down. (We have always advocated Manilla yarn, and recommended it for bedding in preference to tarred hemp.) The old and first Fortress Monroe cable we made in 1862 has been sent back to us by government to strip and keep the core for future use, and the gutta percha insulation and the Manilla yarn bedding is as good as when made in 1862, while the iron armor is entirely rusted out and worthless (it was plain and not galvanized wire.) Tar, under some circumstances, will dissolve gutta percha, and should never be placed near it, especially should it not be compounded with gutta percha for an insulation, we think."

These lines are built on a new plan. There are two sets of poles with two wires six feet apart on each set, which run upon entirely different routes, meeting at stated points for tests and connections. This will probably prevent "crosses," and enable the Company to have at least one or two of its wires always working.

The arms or brackets are saturated with coal tar and fastened to the poles in a very secure manner. The insulators used are the common glass ones, put upon pegs, besmeared with white lead, projecting from the bracket. All metallic connections for securing the wires to the poles are avoided, and a non-conductor is used in addition to the regular insulation. It is hoped this plan will prove valuable, but must of course be thoroughly tested to prove its efficiency.

This Company do not intend to have any "way stations," or take any "way business," but will have three stations between each main office, for tests alone.

This Company will soon commence constructing their lines south of Washington, and will connect with lines now building west from this city and Philadelphia.

WE LEARN that Col. Whiteley, the Washington editor of *The Herald*, has been employed by the United States Company for special service. This Company commenced about the 10th inst. to construct their lines from Washington south.

The American Company have now three wires from Washington to Richmond; two via Frederickburgh, and one via Culpepper and Gordonsville.

PATENT CLAIMS.—2,043.—LIGHTNING ARRESTER FOR TELEGRAPH.—George A. Stearns, Rochester, N. Y. Patented June 21, 1864:

I claim the protection of electric telegraph lines from the disturbing influences of atmospheric electricity by means of a small, fine guard wire, inserted in the main or line circuit thereof, in such a manner as to complete said circuit, when such guard wire is used in combination with a metallic surface or with a series of metallic points, connected with the earth and placed in close proximity to the line at or in advance of said guard wire, all substantially in the manner herein set forth.

I claim also establishing communication between the main or line circuit of an electric telegraph and the earth, for the discharge of atmospheric electricity from the line by the use of charcoal, powdered glass, powdered amber, sulphur, or other equivalent substances brought into contact with said line and connected with the ground, substantially in the manner herein set forth.

48,906.—INSULATOR FOR TELEGRAPH WIRES.—Lewis A. Canvet, New York City: I claim constructing glass insulators for telegraph wires with an internal screw-thread, and securing them thereby to the bearings, bars, or pins of telegraph posts, substantially as above set forth.

49,074.—HELICES FOR MAGNETS.—Everett Bradley, New York City:

I claim a helix composed of two or more connected spires or tiers of uncovered wire, with sufficient space between the several turns of the wire to perfectly separate them from each other, and with the different tiers of wire forming the helix also separated (except at the ends) by the interposition of some non-conductor of electricity.

49,254.—ELECTRIC GAS LIGHTER.—Edward J. Frost and George A. Lawrence, Springfield, Mass. Ante dated July 24, 1865:

We claim, 1st, The combination of an electro-magnet with a valve D, or its equivalent when applied to the pipe of a gas burner and operated by means of the axial bar, G, as set forth.

2d, The valve D, as described when used in combination with the axial bar G, or its equivalent, substantially as described.

THE YACHT CLARA CLARITA AND HER VOYAGE.—This beautiful steamer, which has been kindly placed by her owner, Mr. L. W. Jerome, at the service of Mr. Everett, Engineer of the New York and Newfoundland Telegraph Company, sailed on the 22d ult. for Aspy Bay. The yacht is about 160 tons burden, and is a staunch sea boat.

Owing to the large number of assistants required for the peculiar business of repairing or relaying the cable across the Gulf of St. Lawrence, and the quantity of machinery necessary, with other appliances essential to the successful prosecution of the present expedition, the extent of the accommodations are exceedingly circumscribed, and notwithstanding several of the crew were dispensed with to accommodate Engineer Everett's force, many of the latter will be obliged to find quarters on board entirely outside of the berths and small cabins of the craft.

It was expected the yacht would reach Aspy Bay in season to resuscitate the present cable across the gulf of St. Lawrence before the arrival of the Great Eastern with the western terminus of the Atlantic cable.

While at Halifax the machinery was fully arranged for underrunning the cable in the Gulf of St. Lawrence. W. O. Lewis, Esq., the Superintendent of the Sandy Hook Line, and a gentleman of great experience with telegraphic cables, went with Mr. Everett in the Clara Clarita. She proved herself an excellent sea boat. The yacht, with Engineer Everett's party on board, arrived at Aspy Bay the morning of the 2d inst. The weather and elements were favorable for the prosecution of the work of underrunning and repairing the cable across the Gulf of St. Lawrence.

Workmen commenced underrunning the cable on the morning of the 3d, at about three miles from shore. The armor is entirely rusted off. The trouble is yet beyond us. Dragging for the other end was at once commenced. The machinery works admirably, and there are great hopes of successfully repairing the cable.

The attempt to repair this cable had to finally be abandoned, as it is too far decayed. A new cable must be laid. The Clara Clarita returned to this port on the 17th inst.

LARGE CROWDS from all parts of Newfoundland gathered at Heart's Content, to witness the landing of the Atlantic Cable.

GEN. MARSHALL LEFFERTS, Engineer of the American Telegraph Company, and Consulting Engineer of the Atlantic Telegraph Company, left this city on the 31st ult. for Nova Scotia and Newfoundland, to be present at the landing of the cable, and inspect the telegraph lines connection with the American Telegraph Lines, in order to insure that prompt transmission of dispatches from the Ocean Telegraph. The General returned on the 17th inst.

MR. M. A. ZABRISKIE, who is contracting with the Government of Brazil for the construction of telegraph lines all through that vast empire, is now in this city, but returns soon to Brazil.

HARPER'S WEEKLY, of the 12th inst., contains two cuts from designs by Major F. L. Pope, Assistant Engineer of the Collins' Overland Telegraph Expedition; one of the city of New Westminster, B. C., and the other of the Telegraph Office and the first pole set on the line at the above-named city.

NEW OFFICES OPENED.—By the United States Company: Georgetown, D. C.; Tionesta, Pa.; Elmira, Waverly, Corning and Saratoga, N. Y.; New Albany and Columbus, Ind.; and Morristown, Ohio.

THE ATLANTIC CABLE.—The following items in reference to the Cable are put on record in these pages:

"The Great Eastern sailed from the Nore for Valentia on the afternoon of the 15th of July.

The steamer Caroline, having on board the shore end of the cable, previously reported as having put into Falmouth, left that port again on the 17th for Valentia. The Great Eastern, with the Caroline in tow, arrived off Valentia early on the morning of the 19th. The shore end of the Atlantic cable was landed, and connection made with the land instruments on the 22d inst., in the presence of a large concourse of people. Enthusiastic speeches were made by the Knight of Kerry, Sir Robert Peel and others. Three cheers were given for the Queen and President Johnson.

At 10 o'clock on the morning of the 28th the Great Eastern was about 450 miles out from Valentia, and had paid out 500 miles of the cable. The signals were good and the weather fine.

The British war steamers Terrible and Galatea arrived at St. John, N. F., at 9 o'clock on Tuesday evening, the 15th inst.

Captain Napier reports as follows: The cable parted on Wednesday, the 2d inst., at noon, in 1,950 fathoms of water. It was then grappled for three different times, and raised 1,200, 900 and 600 fathoms respectively. Each time the grapping broke, but the cable remained unbroken. The Great Eastern returned to England for stronger and better grapping gear.

Mr. Varley, one of the electricians, writes most encouragingly in regard to the cable. He says: "We found no difficulty whatever in grapping the cable, even in the greatest depth of water. As soon as proper tackle is prepared we will probably commence grapping for the cable again, 100 miles east of the break, where the water is only 1,500 fathoms deep. The buoy rides the waves well, being fastened by pieces of condemned cable. Mr. Field is in good health and spirits."

We take the following from Mr. Field's Diary:

"All went on in the most satisfactory manner until 2.20 A. M., on Monday, the 24th, when a partial loss of insulation suddenly showed itself. After this the speed of the ship was reduced and the cable paid out more slowly, while tests were applied to locate the fault, which was found to be in the water some miles astern of the Great Eastern. At 8.50 A. M., the cable was transferred to the picking up apparatus at the bows, and we began to haul in the cable. This operation was frequently suspended by want of steam in the boiler attached to the picking up apparatus, and during the day a portable boiler was connected with the former. At 8.05 o'clock the next morning the fault was brought on board, and found to have been caused by a piece of iron wire similar to that used in the manufacture of the

cable, about two inches long, having been forced between the outer wires and through the gutta percha into the copper wire. Ten and a quarter miles of cable were recovered, the fault found out, and a new splice made, the cable retransferred to the paying-out machine at the stern, and at 4.10 A. M., Tuesday, the 25th, all was again in perfect order and the fleet on its way to America having been detained 37 hours and 50 minutes.

Saturday, July 29.—Distance run, 160 miles. Cable paid out, 178 miles. Depth of water, 1,900 fathoms. Tests very good. At 12.06 P. M., it was discovered that there was a serious fault in the cable, which entirely cut off communication with the shore. The ship was stopped and the cable transferred to the picking-up gear, which commenced hauling it in at 9.14 P. M. After picking up two and a quarter miles of cable the fault came on board, and on examination proved to have been caused by a stout piece of wire having been driven entirely through the cable. The two and a quarter miles of cable were recovered from a depth of 1,900 fathoms.

The operation of picking up from this great depth was frequently interrupted by want of steam. The night being very dark and foggy, the operation of lowering the splice and transferring the cable to the paying-out machinery, at the stern, was postponed until the next morning. The Great Eastern was, by the able management of Capt. Anderson, kept up all night to the cable, and so prevented any strain, beyond the cable's own weight coming on it. At 8.10 A. M., the splice had been successfully lowered, and the ship was again on her course. The detention by this fault was eighteen hours and forty-four minutes, and most anxious hours and minutes they were."

Wednesday, Aug. 2.—At 5.27 A. M., on resuming the insulation tests, it was discovered that there was a partial loss of insulation. The ship was soon afterward stopped, and the cable transferred to the picking-up gear at the bows. The operation of hauling in commenced. The engine used for picking up stopped for want of water for a considerable time. Two miles had been recovered, and the cable was cut to see whether the fault had come on board. At about 12.30 P. M. the cable caught and chased on the mouth of the "horse pipe," and was with considerable difficulty removed, and at 12.35 it parted on board where it was injured, just behind the stoppers, and in a moment the end disappeared in the water. Distance ran in the last 24 hours, 116 miles; depth of water, 1,950 fathoms; total distance from Valentia, 1,063 miles; total distance to Heart's Content, 600 miles; total cable paid out, 1,312 miles, equal to 14 per cent. Steamed back toward Valentia 12 miles, and commenced dragging for the cable.

Thursday—At 4 A. M., it being evident from the strain that the grapple had caught the cable, we began to haul in, and at 11.50, when 1,150 fathoms of grapping rope had been got on board, a shackle broke near the ship, and 1,400 fathoms of the rope sunk with the cable to the bottom of the Atlantic. A buoy was lowered with 2,400 fathoms of cable, and a "mushroom" to hold it and mark the spot. During the operation of picking up the machinery gave way. It is supposed that a tooth broke off by the strain, and this getting in between the spur-wheel smashed the latter. This accident happened twice, and the operation of hauling in had to be performed by the capstan.

Monday, Aug. 7.—Lowered another grapnel. At 12.10 P. M., commenced dragging for the cable. At 8 P. M. began to haul in, and continued to do so slowly all night.

Tuesday, Aug. 8.—At 7.50 A. M., 1,000 fathoms of grapnel rope had been hauled in when the shackles broke just inside the ship. Lost in this attempt 1,500 fathoms of rope. A second buoy was lowered to mark the spot. The balance of this day and all the next was fully occupied in having new shackles made for the hauling in rope, altering the capstan, and making preparations for another attempt to recover the cable. Had the apparatus been ready the weather on Wednesday was much too rough to attempt any operations. The two buoys rode out the gales in this depth perfectly.

Thursday, 10th.—At 7 o'clock A. M. we began to lower the grapnel, and at 8.55 had out 2,460 fathoms—all that was on board the ships—and commenced dragging for the cable, and continued to do so until the evening, when we began to haul in slowly.

Friday, 11th.—At 6 A. M. we finished hauling in the 2,460 fathoms of rope, when the grapnel came up foul, with its own chain. At 11 A. M. we began to lower the grapnel again, and as soon as all the 2,460 fathoms were paid out, we commenced dragging until 3.55 P. M., when we began to haul in slowly. It was soon evident by the great strain that the grapnel had caught the cable. At 7 P. M., when 710 fathoms had been recovered, the rope parted. As there was not sufficient rope on board the Great Eastern to resume grapping, it was decided that she should return at once to England.

Our friends and correspondents will oblige us by sending, after the 10th of September, all packages and communications to the care of the Bankers' and Brokers' Telegraph Office, No. 14 Broad St., this city, where we shall be stationed, and happy to see our friends and any one who desires to see us.

THE REPRINT of the first number of THE TELEGRAPHER is now ready for delivery. Price seventeen cents for single copies.

DIED.

At Chelsea, Mass., on the 11th inst., Thomas McKay, formerly an operator in the employ of the American Company at Boston; he was also a member of the Union.

At Baltimore, on the night of the 13th inst., James F. Mattingly, of consumption. He was for 16 years manager, first of the old Magnetic Co.'s, and latterly of the American Co.'s office in that city.

QUOTATIONS OF TELEGRAPH STOCK.

CORRECTED BY JOHN HORNER, CASHIER, AMERICAN TELEGRAPH OFFICE, NEW YORK.

Western Union.....	\$100 shares..	73	Montreal....	\$100 shares,	115 gold.
American.....	"	142	Nova Scotia.	20 "	17 10
Russian Extension...	"	35	Vt. & Boston.	50 "	25
Ill. and Miss.....	\$50	par	Troy & Can. June 50	"	25
East India.....	"	"	Maine.....	50 "	17 50
United States.....	\$100	by the Company			85

WHEATSTONE AND BAIN.

(Concluded.)

"The part in question was simply a mechanical addition involving no scientific principle. So far from the work done by him when he was employed by me, entirely relating, as he states, to his own inventions, the mere inspection of it,—and it remains at present as he left it,—will show that it was essentially copied from the telegraph invented by myself a year before; and this was done under my own immediate directions.

"More than eighteen months have elapsed since Mr. Bain commenced his infringements; and notwithstanding the assistance he has received from the proprietors of the Polytechnic Exhibition, and from other parties who are now connected with him, he does not seem to have advanced beyond imitating the mechanical adaptations of the electric telegraph. Of the real principles of telegraphic communication by electro-magnets, which, assisted by the beautiful theory of Ohm, I was the first to determine, some years since, he evidently knows nothing. The instrument lately shown as his at the above Exhibition, might work, indeed, like any other usual electro-magnetic apparatus, in a room with a powerful battery, but it would utterly have failed to work through any considerable length of wire; while it is well known that my telegraphs are caused to act through many miles of wire by a few voltaic elements of very inconsiderable dimensions. Nothing more is requisite to show the utter ignorance of the writer and his advisers on points relating to the laws of electricity than his assertion that a wire would be made red-hot before a current could be obtained sufficiently strong to make a great number of electro-magnets act simultaneously in the same circuit. Every one acquainted with the subject knows, that to produce a given effect in each electro-magnet, the number of elements of the voltaic pile would require to be in proportion to the added resistances in the circuit; but, this condition being fulfilled, the intensity at every section of the wire and consequently its temperature would remain the same.

"In conclusion, I will merely refer to the letters of Sir P. Laurie and Mr. Baddeley. And what are these letters, after all, brought forward to prove? that Mr. Bain, long subsequently to the dates I have referred to, called upon these parties, and told them he had made certain inventions, which it does not appear they ever saw. Sir P. Laurie's letter seems to have been written with a kind wish of introducing a countryman to the Lords of the Admiralty, and apparently without any intention of its being applied to its present use. It cannot be any disparagement to this gentleman's judgment to observe, that the highest mechanical attainments could not enable a person, after the lapse of nearly two years, to pronounce, of his own knowledge, from a single conversation about a machine which he had never seen, that such machine was then "in a complete state."

"With respect to the note written by Mr. Baddeley, with whom I have not the honor of being acquainted, I will merely observe, that several of the assertions and negatives which it contains, could not have been within the personal knowledge of the writer. Several of those which Mr. Baddeley has stated as facts, could only have been derived directly, or by inference, from the statement of Mr. Bain. Perhaps Mr. Baddeley may find some reasons for doubting the perfect accuracy of his friend Mr. Bain's information, viz: that Professor Wheatstone was at that time unknown to him (Mr. Bain), if he will refer to the 87th Number of the *Inventor's Advocate*, where he will find that person stating, that he had made communications to me on the 1st day of August, 1840. If his visit to Mr. Baddeley, therefore, was on any other day in that month, he must from his own admission, have previously known me. I have strong grounds for thinking this was the case; for not many weeks after Mr. Bain was employed by me, and while he was under a written engagement not to communicate what he was about to any other person without my permission, he called upon other parties in the same manner as Mr. Baddeley says he called upon him, and stated also, on these occasions, that he had made the inventions in question, and was looking for some person to assist him in bringing them before the public. I have been informed of this by Mr. Irving, one of the gentlemen to whom he so applied.

"I have now done with these unjustifiable charges which have been brought forward solely for the purpose of giving a colorable pretext to infringements, which certain parties are endeavoring to make, of the patents for the electric telegraph obtained by myself and Mr. Cooke. These infringements, if attempted to be carried into effect, will be the subject of inquiry in a court of law—a more proper place for the discussion of such matters than the columns of a literary journal.

"C. WHEATSTONE."

When Mr. Bain replied to Professor Wheatstone's letter of the 13th of June—though Mr. B.'s letter was dated the 18th of June—it did not appear until the 6th of August, with an intimation from the editor that he would insert no more on the subject than any rejoinder to this one which Mr. W. might choose to make. Thus Mr. Bain was prevented from adducing further proofs. The Professor's rejoinder was accordingly inserted in the number of the 20th of August; and it contained such testimony in favor of his mode of stating the case, under the hands of many

distinguished persons, so well and honorably known in the scientific world, that any ordinary reader must needs be impressed with the conviction, that Mr. Bain could have no pretension at all to either of the two discoveries in question, notwithstanding that it is an absolute truth, that each of them are, in principal and detail, the certain emanation of his own unassisted genius. In the humble sphere of his acquaintance he had no such counter-testimony to adduce.

In practical mechanics he is not merely an artist of the very first order (an immense advantage this over the man of books, because his hand can execute whatever his mind conceives), but he is endowed moreover with inventive faculties of such fertility that no one can see the exercise of his ingenuity without wondering what new invention may next occur to his prolific imagination. His late valuable discovery was the result of extensive and repeated experiments. The letters of Mr. Wheatstone bear internal evidence of much ambiguity and want of candor. Many facts, obviously within his knowledge, are suppressed; others are greatly distorted and perverted from their true meaning.—Some facts are solemnly denied, and yet at the same time fully admitted (a proof that the departure from veracity is involuntary, the effect, probably of writing under some strange excitement). While apparently from hallucination not far short of delusion, more than one important fact is asserted which has no foundation at all. Thus, no allusion is made in those letters to the fact that Mr. Bain, jointly with Mr. Barwise, is the legal proprietor of the invention of Electric Clocks, by letters patent of 8th January, 1841; and that, jointly with Lieutenant Thomas Wright, of the Royal Navy, he is also the legal proprietor of the Electric Printing Telegraph, on vastly improved principles, by a patent sealed on 7th of December following; both which patents were vehemently but unsuccessfully opposed by Mr. Wheatstone in person. This, it is humbly conceived, is the suppression of a very material fact. Neither does the Professor mention, that as early as March, 1841, he endeavored to terrify Mr. Bain from daring to make any use of his own inventions by threats of vengeance in the shape of legal proceedings, all which menaces had the mischievous effect of deterring those to whom Mr. Bain applied to patronize his ingenuity, from having any concern with him, especially the Lords of the Admiralty, who, by this clever stratagem, were made to entertain a doubt as to which of the parties the property of the Printing Telegraph really belongs.

Again, the Professor never saw nor heard of Mr. Bain until the 1st day of August, 1840, when the latter waited on him to describe his two inventions of the clock and printing telegraph. A second interview was fixed for the inspection of the rough models of those engines on the 18th of that month, on which day Mr. Wheatstone saw and examined each of them. For £5 in hand, with a written promise of £50 more eventually, he purchased on the spot, so much of Mr. Bain's telegraph as related to the apparatus of printing. In a few weeks afterwards he engaged Mr. Bain to execute a costly finished model of a more complex engine for printing, which Mr. Bain had likewise invented, and which he then considered a great improvement on the other. For all this the Professor promised to pay Mr. Bain £150 whenever the engines should be brought into use, and in the meantime supplied him, on several occasions, for materials, &c., with various small sums, not exceeding £25 in the whole. Now, when on the strength of thus purchasing an artist's models and of thus engaging him to execute costly engines of that artist's own sole invention, in the total absence of any other transaction between the parties, Mr. Wheatstone thinks himself justified in describing Mr. Bain in general terms as "a working mechanic, who was employed by him between the months of August and December, 1840." This is surely a perverse misrepresentation of the real fact!

Not only this, but he broadly states, that Mr. Bain's performance was copied from his own previous inventions, and was moreover nothing else than what any workman of ordinary skill could have effected—a flat impossibility, because Mr. Bain's models, one of which the other immediately purchased, were of necessity complete before the parties ever saw each other. The worst of the matter is, that the impression of the artist being one of Mr. Wheatstone's ordinary workmen, had, from the first moment of that gentleman's acquaintance with Mr. Bain, been industriously circulated in many quarters, even at the Admiralty, to the serious injury of the latter, both in fame and emolument; but neither do Mr. Bain nor his friends feel the smallest reproach in the epithet of his being a "working mechanic." Quite the contrary; they conceive it infinitely more to his honor that he is enabled, and successfully, to contend in science with those who deem themselves so very far his superior in knowledge.

It appears that the *Inventor's Advocate* which had freely opened its columns to Mr. Bain, when vindicating his claim to be the real inventor of the Electric Clock—a person presented himself at the office of that journal, with Messrs. Cooke and Wheatstone's ordinary advertisement, and proffered, on behalf of the partnership, a series of those lucrative insertions, on the express condition that no more letters from Mr. Bain on the subject of the electric clock should be admitted into its pages. The high spirited editor refused to comply, and that was the last advertisement sent. This fact is established by letters from the editor and his clerk.

From the Collins Overland Telegraph Expedition.

[Correspondence of THE TELEGRAPHER.]

NEW WESTMINSTER, B. C. }
June 13th, 1865. }

In my former letter, written from San Francisco, I think I stated that the final organization of the expedition was not at that time complete. It was afterwards decided to start two exploring parties, one to examine the route through eastern Siberia, between Behring's Straits and the Amoor, and the other to follow the proposed route up the Frazer River in British Columbia, and thence along the valley supposed to exist between the Rocky Mountains and the Coast Range, to the head waters of Pelly River, following down the valley of this river and the Yerkin into which it empties, to a point near the mouth of the latter, or in the neighborhood of Behring's Straits.

The party detailed by Colonel Bulkley to make an examination of this route, left San Francisco by steamer of May 17th for British Columbia via. Victoria. As I shall accompany this detachment, you will have to depend upon others for details of the progress of affairs in other portions of the expedition. At the time of our leaving San Francisco, the other exploring parties were not fully organized, and I have not learned who is to have command of them.

The company have recently purchased the fine propellor Geo. S. Wright for the use of the expedition. She is nearly new, and has lately been running between Portland, Oregon, and Victoria.

Our party arrived here from Victoria on the 27th of May. The steamer on which we made the passage from San Francisco to Victoria was delayed three days on her way, at Portland, Oregon. During that time the party were enabled to visit the world renowned Cascades of the Columbia, through the generosity of Col. J. S. Ruckel, President of the Oregon Steam Navigation Company, who tendered us a free passage on the Company's steamer "Wilson G. Hunt." On the following day, through the kindness of Captain Joseph Kellogg, of the steamer "Senator," we enjoyed another delightful excursion to the Falls of the Willamette on board his boat. In behalf of the members of our party, I take occasion to express my most sincere thanks to these gentlemen, as well as to Captain John Wolfe of the "W. G. Hunt," and Mr. William Burnett, Inspector of Steamboats, for their numberless acts of kindness towards our party, which will render our brief stay in Portland an occasion not soon to be forgotten by any of us.

New Westminster, British Columbia, is situated on the Frazer River, about 15 miles from its mouth. It is the capital of the colony, and the terminus of the California State Telegraph. The line of the Collins Overland Telegraph will also commence at this point. The work on this portion of the line is proceeding with great energy under the efficient superintendence of Mr. Ed. Conway, Assistant Engineer. It is scarcely two months since active operations were commenced, yet during that time nearly three hundred miles of poles have been cut and prepared for use. A large number have been set, and the remainder are already distributed along the line. The poles are nearly all cedar and of good size, and when finished they will form one of the most durable lines on the American continent. When the extremely mountainous and difficult nature of the country along the Frazer is taken into consideration, the rapidity with which this large amount of work has been done is extraordinary. It seems quite probable that the line will be finished the present season from New Westminster to Quesnell River, the terminus of the wagon road to the mines.

The colonial government are now engaged in cutting a road from New Westminster to Yale, a distance of about ninety miles, along which the wire will be carried. There has, heretofore, been no communication between these two points whatever, except by water. The river is bordered on both sides by high mountains and dense forests of heavy timber, with an almost impenetrable undergrowth. Notwithstanding these difficulties, Mr. Conway, during the latter part of last winter, made an exploration of the entire route, on snow shoes, a feat which had never before been attempted by any white man, and which the most experienced members of the Royal Engineer Corps had previously declared to be impossible. Mr. Conway was at one time three days in the woods without either food or blankets while making this exploration.

From Yale to the Quesnell River, a distance of some 300 miles, the line will follow the wagon road which has been built at an enormous expense by the colonial government, as a means of communication with the gold mining regions of Cariboo.

It will be a matter of considerable difficulty to construct a line of telegraph over that portion of this road which passes through the "great canon," as in many places the road has a perpendicular wall of rock upon one side and a perpendicular precipice on the other, and in one place is carried round the face of a cliff in this manner at an elevation of some 2,000 feet, directly over the river, being in some parts blasted out of the solid rock, and in others supported by a sort of staging. But in any place where a wagon road can be built, a man like Assistant Engineer Conway need not despair of building a telegraph line.

ELECTRON.

SUSQUEHANNA STATION, ERIE RAILWAY, PA., June 16th, 1865.

To the Editor of The Telegrapher:

Since my advent into this beautiful country I have witnessed with pride many evidences of the work of our honorable association. Every few days I meet operators travelling to and from the west over this great thoroughfare, wearing the badge of the "Union," which insignia is a splendid mark to enable members to recognize and become acquainted with each other without introductions from a third party, especially so where we happen to meet among strangers in a strange country. For a week after my first arrival here, there were five operators employed at this office, and we resolved to establish a District at once. Our polite manager and myself were already members, but fate conspired to defeat our plans. One of our number was ordered to another station, which reduced our ranks below the number required by the Constitution as requisite to the formation of a District.

Binghamton can muster more than the number required, and also several who are now members of the Utica and New York Districts. From conversations had with some of them, I am convinced that flourishing District could and should at once be organized at that place. It is a central point on this road, and would embrace offices east and west on the Erie Railway, and north on the Utica lines, where operators are eager to become members so soon as a District is formed within speaking distance of them. There are two operators here not members now, who would become so immediately upon the organization of such a District.

Can you not arouse the Corresponding Committee to action in this matter, and cause letters to be written which I am sure would meet with a ready response from our Binghamton friends? You might write a short appeal in your editorial columns which would be circulated among them by subscribers of THE TELEGRAPHER in that place.

I see THE TELEGRAPHER upon nearly every operator's desk out here. Its coming is looked for anxiously, and its contents eagerly devoured by members and those who are not. Even those who are not operators are interested in its perusal. I had several such applicants for the loan of my last number.

God speed to the good work so auspiciously begun, and a brilliant career for our official sheet, is the earnest prayer of a friend to the "Union." 73—

(We fear the "Corresponding Committee" are beyond human aid.—ED.)

To the Editor of The Telegrapher:

I am a new comer, and only recently commenced duty in one of the repeating offices in this great State. I had formed an exalted idea of a "city operator," and was led to believe that men of superior ability, and of mature age could alone perform the work in an office like the one in Philadelphia; but lo! here I am in the midst of them, and I find boys are occupying positions for which they are totally unfit; worst of all, in the office where I am employed, there are those who are of mature age who, yet from some unexplained cause, are as boyish and trifling in their manners as those to whom they should be an example. Now while I would not have posted in each office a set of rules and regulations for the government of operators, yet I would urge the operators to so deport themselves towards each other in the office, and towards those with whom they do business over the line, that the first may profit by their example, and the latter be made to desire a further and more intimate personal acquaintance with one who can be so agreeable at a distance.

PHILADELPHIA, June, 1865.

FREAKS OF LIGHTNING.—*The Baltimore Sun* of the 10th June says: "On Saturday afternoon, about two o'clock, this city was visited by a violent gust of wind, succeeded by a severe thunder-storm. The pole of the city police and the fire alarm telegraph at the corner of Monument and North streets, was injured to such an extent as to render the alarm box useless."

During the thunder-storm of Friday evening, 9th June, a farmer named John Dippel, residing on the old Schenck farm, corner of Bushwick Avenue and Johnson Street, Brooklyn, L. I., was struck by lightning while in his orchard, and now lies in a critical state. The electric fluid struck his head and descended his back, branching off at his legs and going through his boots, tearing them off his feet. The left ankle was badly lacerated and the spine is paralysed. The recovery of the injured man is doubtful, although he received the prompt attendance of Drs. Wittman and Loewinstein. About the same time and near the same place a farm hand while driving a wagon, was also struck, but not badly injured; the fluid, however, took one of the wheels off the cart he was driving.

During a thunder storm at Palmyra, N. Y., last week, the lightning struck D. S. Aldrich's barn, ran along the roof and down a pole to the ground, killing a pig and ripping off several boards.

A gentleman, while walking the streets at Des Moines, Iowa, during a thunder storm, recently, had one of his eyes completely destroyed by lightning, without other injury.

That was a queer freak the lightning took at a store in Rockville, Connecticut, Saturday afternoon, a week ago. It entered at the door in a livid flash, which actually lit an oil lamp, and left it burning, without leaving any other visible marks of its passage.

THE TELEGRAPHER,

PUBLISHED BY THE
National Telegraphic Union.

The UNION is an association of telegraph-operators for their own mutual benefit and support, and THE TELEGRAPHER is published to disseminate information among its members, as well as general telegraphic news.

THE TELEGRAPHER is published in New York, on the last Monday of every month, and besides matters of associate interest is devoted to the interests of telegraphers all over the world, and will contain telegraphic information from all parts of the globe.

It is not confined to any one policy, but will seek to correct abuses, give honor and praise wherever and whenever due, and endeavor to elevate the standard of operators both morally and scientifically.

It will not support any one person or corporation, but will aim to treat all alike, censuring either or both, when merited, and praising alike when praise is won.

Its columns will not be open to any one for personal abuse, nor for personal profit at the expense of others, nor will it contain anything that the most fastidious would not read.

THE TELEGRAPHER will contain Original Articles upon any and all subjects of interest to the fraternity and profession; Extracts from Works on Telegraphy, Electricity and Magnetism; Statistics; Improvements in Telegraphy, Telegraph Instruments and Materials; Correspondence; Poetry upon Telegraphic subjects; Telegraphic Literature; Incidents and Items of Personal interest; Promotions; Etc. ovals; Resignations; Marriages and Deaths of Telegraphers; Newspaper extracts of Telegraphic Items from any and every City, Town, State or Country.

We invite the co-operation from every one who is directly or remotely connected or interested in Telegraphy, in this undertaking to establish and maintain a first-class telegraphic newspaper, and for any items of news or personal telegraphic interest, articles or newspaper extracts upon any of the above mentioned subjects. We will cheerfully pay a reasonable sum for any trouble or expense gone to behalf of this paper, and for any Original Articles which we may use.

We request aid from all, whether high or low, and will make a fair return for the same.

THE TELEGRAPHER is a Medium Quarto of sixteen pages, (the last four of which will be devoted to Advertisements of Telegraphic Materials, or any other respectable business) with clear type and on good paper. It will aim to be first-class telegraphic newspaper, and not to be surpassed in the vigor and spirit of its editorials, nor in the variety and freshness of its reading matter generally. On all subjects which it discusses will aim to be correct, independent, clear, conscientious and fearless.

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No notice will be taken of anonymous communications: the name and address of the writer must always accompany each article or communication.

Correspondents sending articles for insertion must write briefly, and on but one page of each half sheet of paper. We cannot return rejected articles.

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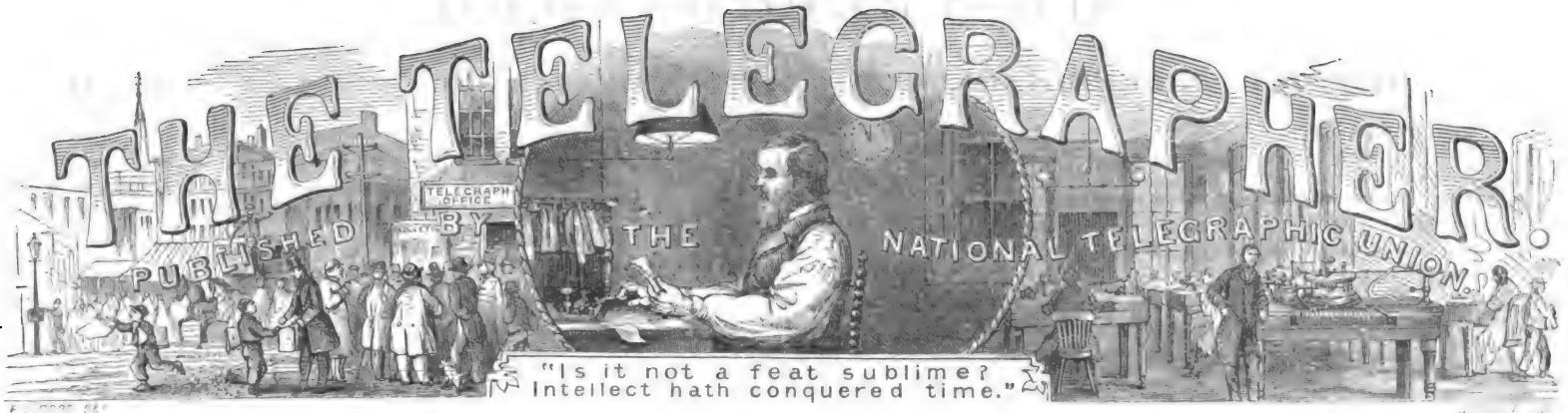
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Vol. I.

New-York, Monday, September 25, 1865.

No. 13.

GENERAL OFFICERS

OF THE

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ALTHOUGH we have delayed the publication of this issue one week, we have been as yet unable to get one letter of the proceedings of the Convention, beyond the result of the election of officers and a synopsis published in the Chicago papers, from the official reporters. This we very much regret, as the more we hear about and learn of the doings of the meeting, the more interested are we, and the more intense is our desire to give our readers a rare treat. We made repeated requests that a duplicate of the several reports be sent us in advance, so that the Secretary would have but a portion of the first day's proceedings to send us for this issue. This might, we think, have been easily done, but for some unexplained reason was not.

EARTH-CURRENTS AND THE ATLANTIC CABLE.

The Scientific American says: "If a piece of insulated wire is bent in a coil, and a current of electricity is passed through it, the axis of the coil becomes a magnet, and continues so as long as the current is flowing. From this fact it has been supposed that the magnetism of the earth is induced by currents of electricity passing around the globe, this current being excited by the heat of the sun as the earth rotates beneath it.

"In the year 1840, a series of very delicate observations on the variations in the magnetism of the earth were commenced at Girard College, Philadelphia, and the results have been the subject of elaborate discussion by Professor Bache, in several papers that have been published by the Smithsonian Institution as a part of its contributions. We recently published Professor Bache's conclusions in regard to the more regular variations in the earth's magnetism—those which occur daily and those of the eleven-year period—corresponding with the recurrence of spots on the sun. Beside these, the observations discovered occasional variations of great irregularity and violence, which have been called magnetic storms. It seems that such a storm was prevailing at the time the signals became unintelligible on board the Great Eastern, and may have been the only cause of the signals failing. If this was so, the cable was cut, without any necessity, when in perfect condition.

"The registering apparatus employed to record variations of magnetism is the most delicate of any instrument known to either mechanic arts or scientific observation. The force is so small that the needle must be suspended to traverse with the greatest possible ease; a pencil rubbing against paper would hold it fast. A thin silver mirror is mounted upon the needle, and upon this is thrown a beam of light which is reflected upon a strip of photographic paper, the apparatus being placed in a dark room where no light other than the reflected beam can reach the paper. The paper is slowly unrolled from one roller and wound upon another by clock-work, the spot of light printing a continuous line as the paper is drawn along. For horizontal variations the paper has, of course, a vertical motion, and for the vertical dip a horizontal motion—the variations giving a zigzag form to the line."

The English papers publish the following letter, in relation to the recent magnetic storm, from Professor Airy, the Astronomer Royal:

"ROYAL OBSERVATORY, GREENWICH, August 5—12 M.

"DEAR SIR: At the date of my letter yesterday, the magnetic storm had somewhat subsided. Very soon, however, there were signs of great activity, and by eleven o'clock of last night, (Friday, August fourth,) the magnetic storm was sensibly as violent as before, and continued so through all the early morning hours. It has declined a little through the morning, but at the present time (Saturday, August fifth, at noon,) it is still very active.

"The spontaneous earth-currents were not quite so strong in the last twenty-four hours (ending Saturday, August fifth, at noon) as in the preceding twenty-four hours, (ending Friday, August fourth, at noon,) but they are still very active. A nearly continuous register is made by the currents on the Dartford wire (which at first were not very strong) to midnight of Friday, August fourth; but since that time the traces have been lost, and the currents on the Croydon wire have been very violent; only for a short time, ending about Friday, August fourth, at three P.M., was the motion sufficiently gentle to have left any record, and then imperfectly. After that time the currents were so violent that the trace is totally lost.

"It is scarce in possibility that a telegraph current can have passed along the Atlantic cable in a legible state during any part of this time.

"G. B. AIRY.]

"G. SAWARD, Esq."

ATLANTIC CABLE—IS IT AGAIN A FAILURE?

To THE EDITOR OF THE SUNDAY CHRONICLE:

In 1858 I called attention, through the *Baltimore Patriot* and *New-York Tribune*, to objections to the *twisted* form of construction of the cable at that time, contending that it would cause such distortion of the parts while under the operation of paying out, as would inevitably injure the core, and greatly impair the normal strength of the cable.

The core of the present cable being similarly surrounded with spirally-laid strands of iron wire, there is but too much reason to fear that this, too, must fail. For these reasons: The strands wound spirally around a given length of core being much longer than the part of the core embraced by them; and as, in paying out, the weight of the suspended part will produce concentrated strains in the cable at the point of paying out, the strain will here cause the cable to unwind and lengthen, in consequence of the spiral strands becoming straightened and proportionally longer; consequently, the core must also yield in length to the same extent as the strands. This stretching of the core, even if but slight, must be injurious, as it tends to cause leaks; but when under strains that will nearly straighten the strands, as was the case with the old cable when paying out in the deepest water, the core must become greatly elongated, its texture deranged, torn, and perhaps totally ruptured. But this is not all. Untwisting the cable impairs its strength. For, every turn taken out of the spiral lay of the strands *cuts a corresponding twist* (backward) *into each of the strands*, a kind of torsion that iron wire is ill calculated to bear, especially when subjected to tensile strains. Hence, there is great danger that the present cable has, or will break in consequence of its twisted form, or that its core will be fatally injured, as above explained.

Both of these dangers might, however, have been avoided, by applying the spiral wires surrounding the core *straight*, and serving them firmly to the core by means of strong hemp or annealed wire serving. With such a cable, of straight (not spiral) covering, there will be no danger of kinks, either in paying out or in under-running.

B. SEVERSON, M.E.

THE SUBMARINE CABLES OF THE WORLD.—Fifty-two lines of submarine cable have been laid by English firms in different parts of the world, all of which are in successful operation, with the exception of that between France and Algiers, and it is supposed that was injured by lightning. The longest line in operation is that between Malta and Alexandria—fifteen hundred and thirty-five miles. The deepest water in which any working-cable rests is fifteen hundred and fifty fathoms—one and four fifths miles—between Toulon and Corsica. The aggregate length of working-lines given is fifty-one hundred and five miles, and this does not include a number of short lines laid in different parts of the world, nor those laid by Felten & Guilleanne, of Cologne, amounting to more than one thousand miles. One line has been laid thirteen years, five have been laid twelve years, four eleven years, and others shorter periods.

DISTRICT PROCEEDINGS.**BOSTON DISTRICT.**

A SPECIAL meeting, for the purpose of taking appropriate action on the death of Mr. Thomas McKey, (one of our oldest members,) which took place this afternoon, (August eleventh,) at the residence of his mother, in Chelsea, Mass., was called by the Secretary, the District Director being absent.

The meeting organized by the selection of Mr. T. A. Davin as Chairman, who, in a few brief remarks, stated the object of the meeting.

Mr. J. W. Stover spoke of the great loss we had sustained in the death of our associate in business, and friend, Mr. McKey, and also urged us ever to be ready to answer our last "call."

A committee of five were appointed, consisting of Messrs. Duxbury, Roberts, Havens, Flagg, and Davin, to draft resolutions of respect, etc.

The following were adopted:

Whereas, It has pleased the Almighty, in his infinite wisdom, to remove from among us, after severe and protracted illness, our associate in business and beloved friend, Thomas McKey; and

Whereas, We desire to render to the afflicted relatives of the deceased some evidence of our appreciation of the loss which we have mutually sustained in his death, and to extend to them our heartfelt sympathy in their bereavement: therefore be it

Resolved, That in the death of Thomas McKey, the profession has become deprived of one of its oldest and brightest ornaments, the Union of one of the oldest and firmest supporters, and his numerous friends of an agreeable and valuable acquaintance, whose sterling virtues and straightforward manliness have been alike the objects of remark and respect to those with whom he was brought into intercourse.

Resolved, That we hereby extend to the afflicted friends of the deceased the assurance of our cordial sympathy in their bereavement.

Resolved, That as a mark of respect to the memory of the deceased, we adopt the customary badge of mourning for the ensuing thirty days; and

Resolved, That a copy of these resolutions be drawn up and presented to the mother of the deceased, and also published in the several papers of the District.

On motion, the meeting adjourned.

T. A. DAVIN, *Chairman.*

D. C. ROBERTS, *Secretary.*

WASHINGTON DISTRICT.

SPECIAL meeting held this evening, (August twelfth,) at eight o'clock.

Thirteen members present. Result of vote for District officers and delegates announced.

Mr. Royce declined serving as District Director, and a new election was ordered immediately.

Messrs. John W. Boyd, of United States Military Telegraph, Drummondtown, Va., and L. J. Blades, of United States Military Telegraph, Newtown, Md., were elected members.

Adjourned at 8.45 P.M.

WILLIAM H. H. CLARKE, *District Director.*

M. MARSHALL, *District Secretary.*

NEW-JERSEY DISTRICT.

REGULAR meeting of this District was held at eight P.M., Monday, August seventh. District Director in the chair. Mr. Stewart was appointed Secretary *pro tem.* Reading of the minutes of last meeting dispensed with. Messrs. H. A. Perrine and Charles Suydam, Bordentown, Robert H. Morris, South-Amboy, Daniel Snowhill, Spotswood, and Charles Schermerhorn, Burlington, were proposed for membership and duly elected.

Mr. Wright moved that the nominations for candidates be opened. Carried. Mr. Bellis was nominated for District Director, and Mr. Bird for District Secretary. Nominations closed. Messrs. Moon and Ferry were appointed Tellers. The following-named gentlemen were elected for the ensuing year:

John A. Wright, District Director; Robert Stewart, Local Director; J. J. Bloom, District Secretary; William Hinman, District Treasurer; John A. Wright, Delegate to the Convention, and R. Stewart, Alternate.

Mr. Wright moved that the vote taken in reference to the Local Director at our last meeting be stricken from the minutes; that they were unconstitutionally and hastily acted upon, and that the sense of this meeting is hereby so expressed. Carried unanimously.

On motion, adjourned.

JOHN A. WRIGHT, *District Director.*

C. S. BEALES, *District Secretary.*

LOUISVILLE DISTRICT.

REGULAR meeting of this District held August seventh, 1865. Election of District officers for the ensuing term resulted as follows:

District Director, A. Ellison; District Secretary, J. H. Vestal; District Treasurer, W. L. Biggert; Local Director, J. J. Flanagan; Delegates to the Convention, J. J. Flanagan and W. M. De Grove; Alternates, A. Ellison and J. H. Vestal.

Mr. W. L. Biggert proposed Mr. W. F. Ware, of Stevenson, Ala., as a member.

J. H. Vestal proposed Messrs. T. H. Berry, of Louisville, B. F. McCord, of Bardstown Junction, Ky., G. D. Mentz, of Colesburgh, Ky., W. L. Barth, of Gallatin, Tenn., and J. A. Remley, of Edgefield Junction, Tenn.

Laid over until next meeting.

On motion, meeting adjourned.

J. H. VESTAL, *District Secretary.*

A. ELLISON, *District Director.*

ST. JOSEPH DISTRICT.

THE regular meeting of this District was held to-day, (August eleventh.) Meeting called to order at three P.M. District Director in the chair. Eight members present. Minutes of last meeting were read and approved. The names of H. A. Galliher, of Lawrence, Kansas, Martin D. Wood, of Atchison, and M. M. Joyce, of Fort Leavenworth, were presented as candidates for membership to this District. Each of above-named gentlemen was unanimously elected.

The election of District Officers for the ensuing year being declared in order, Messrs. Peabody, McDill, and Woodring were nominated as candidates for District Director. Messrs. McDill and Peabody withdrew their names.

Mr. McDill moved that Mr. Woodring be unanimously declared District Director and District Treasurer for the ensuing term. Carried.

Messrs. Bloss, Martyn, and McDill were nominated as candidates for District Secretary. Mr. Martyn declined becoming a candidate. Mr. Martyn moved that the nominations for Secretary cease. Carried. On vote being taken, Mr. McDill was declared re-elected by one majority. Vote stood: McDill, 6; Bloss, 5.

The election of Delegates to the Chicago Convention was proclaimed as next in order. Mr. Woodring nominated S. P. Peabody, of St. Joseph. Mr. Martyn nominated Mr. McDill, of Kansas City. The latter gentleman withdrew his name from the list. Mr. Cook moved that the nominations cease. Objected to by Mr. McDill, who nominated Mr. Martyn, of Leavenworth. On vote being taken, it stood as follows: Martyn, 7; Peabody, 3. On motion of Mr. Peabody, Mr. Martyn's election was made unanimous.

Mr. Gould nominated Mr. Peabody as alternate. Mr. McDill moved that Mr. Peabody be declared alternate to the Convention by acclamation. Carried.

On motion, meeting adjourned.

S. P. PEABODY, *District Director.*

E. B. McDILL, *District Secretary.*

ST. LOUIS DISTRICT.

MEETING called to order at eight P.M., July twelfth, District Director presiding.

Minutes of last meeting read and approved. The meeting then proceeded to ballot for Messrs. Dwyer, Irwin, Coates, and Seymour, all of whom were elected members of the Union.

Mr. Hammond moved a suspension of the rule (for the time being) wherein a committee is required to investigate an applicant's fitness for membership. Carried unanimously.

The names of H. P. Hull, C. F. Loomis, W. P. Slocum, C. H. Benedict, R. Thom, and R. C. Voelker were then proposed and elected.

Mr. Hammond moved that a committee of three be appointed to name and recommend the election of delegates to attend the Convention. Messrs. Hanumond, Paxon, and McKenzie were appointed as such committee, and performed their duties satisfactorily and suddenly in naming the following gentlemen: Delegates—William Stoneback, M. D. Crain, and A. H. Seymour. Alternates—J. Knox Pierson, J. McMichael, and C. C. Robinson.

The resignation of Mr. Woodrum was then read and accepted.

The committee on hall to be used for meeting purposes reported their ability to procure a suitable place, and desired that they be empowered to make final arrangements, which was immediately granted them.

There being no more business before the meeting, a motion made to adjourn was carried.

At a subsequent meeting, held August sixteenth, an official count of the votes resulted in the election of the above-named gentlemen for Delegates and Alternates respectively.

WILLIAM STONEBACK, *District Director.*

C. C. ROBINSON, *District Secretary.*

MAINE DISTRICT.

REGULAR meeting called to order at eight P.M., second ultimo. Fifteen members present. Doubts having been expressed as to the legality of the elections made at the August meeting, another election was ordered. Mr. Silsby, of Winterport, declined being a candidate for District Director, and on motion of Mr. Austin, of Portland, C. I. Collamore, of Bangor, was nominated, and on ballot receiving eleven votes, was declared elected.

The nomination of C. H. Sawyer as Delegate, made at the July meeting, was confirmed. He, receiving thirteen votes, was declared elected Delegate to Chicago.

There being no further business, meeting adjourned.

C. I. COLLAMORE, *District Director.*

J. H. MILLIKEN, *Secretary pro tem.*

DETROIT DISTRICT.

REGULAR monthly meeting held September third, 1865, at four P.M. District Director in the chair. The minutes of the previous meeting were read and approved. The Treasurer's Annual Report was read and approved. E. D. Howe honorably withdrew from the Union. G. W. Lee and Thomas Priest were unanimously elected members of this District. The District Director appointed Messrs. C. Fox and C. Corbett his counsel for the ensuing year.

T. W. PRIEST, *District Director.*

HUGH IRVINE, *District Secretary.*

BALTIMORE DISTRICT.

ADJOURNED meeting called to order at five P.M., August twentieth. Sixteen members present.

Minutes of last meeting read and approved. After considerable discussion on various matters connected with the coming Convention, a committee of five, consisting of the District Director and four others, was appointed to draft resolutions for the instruction of our delegates to the Convention. Messrs. A. A. Witters, George L. Davis, and M. B. Wolff were elected members of this District. Applications of Messrs. Lavin and Mullinix referred to Local Director. Mr. W. H. Jewell's application for membership was rejected. Letter from Mr. Hayes, of Buffalo, read, in regard to certain actions of W. S. Logue, a member of this District. Subject referred to Executive Committee. Adjourned.

REGULAR MEETING.—Meeting called to order at three P.M., third instant. Sixteen members present.

Minutes of last meeting read and approved. Messrs. W. H. Bauer and W. K. Applebaugh were elected members of this District. The applications of J. H. Allen and Orin Jenks were referred to the Local Director.

Mr. Kelty was elected delegate to the Convention, *vice* Mr. Ways, resigned.

Resolutions on the death of Mr. Mattingley were read and adopted.

Several proposed amendments to the Constitution were read and approved.

The cases of Messrs. Lavin and Mullinix were laid over to next meeting.

A committee, consisting of Messrs. Wilson, Williams, and Stewart, was appointed, to ascertain upon what terms the room for District Meetings can be fitted up.

The Reports of the District Treasurer for the quarter ending July thirty-first, 1865, and for the year ending August first, 1865, were read and adopted.

A vote of thanks was tendered to all the retiring District officers.

Adjourned.

J. B. YEAKLE, *District Director.*

C. S. SHIVLER, *District Secretary.*

NEW-YORK DISTRICT.

THE second Annual Meeting of this District was held on the seventh of August, the Director occupying the chair.

The minutes of the last meeting were read and approved. The Treasurer's report was read and accepted.

The following-named gentlemen were elected members: Messrs. Charles Willis, C. H. Cottrell, William Blanchard, J. B. Prince, T. R. Wells, and W. McGibney.

The election for District officers and delegates being in order, resulted as follows:

Walter Steinhoff, reelected District Director; M. B. Lillis declining the nomination.

Thomas Allen, District Secretary; D. R. Downer declining the nomination.

Thomas P. Allen, District Treasurer; Messrs. Dennis and Redding declining the nomination.

J. W. Burnham, Local Director; Messrs. Christie and Collins declining the nomination.

Delegates—Messrs. F. G. Beach, J. B. Oltman, J. L. Edwards, and M. H. Redding. Substitutes—Messrs. H. P. Jones and J. B. Page. Messrs. Finch, Gay, and De Witt declined the nomination as delegates.

The Chairman of the Committee on "Thanks to the American Telegraph Company," reported resolutions drawn up, but mislaid, and asked permission to present them to the Company subject to the approval of the next meeting. Agreed to.

The Chairman of the Corresponding Committee reported his inability to report favorably, owing to urgent business. The Committee ordered to report definitely at next meeting.

A tax of twenty five cents was assessed on each member, to meet the expenses of fitting up the new meeting-room. An amendment ordering the amount assessed to be paid then and there by the members present, was carried unanimously, when the District Treasurer proceeded to collect the several sums.

Meeting adjourned at eleven P.M.

M. K. THOMPSON, *Secretary pro tem.*

A SPECIAL meeting, held on the seventeenth of August, was called to order by the Director. Twenty-one members present.

The Director made some remarks as to the object of the meeting, which was to instruct our delegates to the Convention on the several changes and amendments to the Constitution and By-Laws as they now stand, which are considered necessary by this District.

Mr. Steinhoff, after calling Mr. Edwards to the chair, offered the following resolutions, which, after being thoroughly discussed, were unanimously agreed to:

To amend clause seven, article four of the Constitution so as to read: "It shall be the duty of the Local Director to have a general supervision of the affairs of the District, examine the qualifications for membership, and report the same to the District Director."

That clause four, article nine, section two of the Constitution be stricken out.

To strike out the words, "Receive and count the votes," in article four, section one, clause six of the Constitution.

To insert in the Constitution: "It shall be the duties of the District Secretary to notify all members of their election, and to do the proper correspondence of the District, subject to the approval of the District Director."

To insert in the Constitution: "The District Treasurer and District Secretary shall be recognized as District officers."

To amend article five, section two, clause two of the By-Laws, to read: "The National Telegraphic Union shall pay all expenses which may be incurred in the District and in the formation of other Districts."

To amend article three, clause one of the By-Laws. The word "Director" to be stricken out, and "Secretary" inserted.

To strike out section one of article nine in the By-Laws.

To strike out the word "Director," and insert "Treasurer," in article three, clause three of the By-Laws.

Mr. Smith offered the following resolution, which was carried:

That the delegates from this District be and are hereby instructed to offer at the Convention the amendments and acts suggested in the last three numbers of THE TELEGRAPHER, whenever they do not conflict with the instructions given here this evening.

Dr. Cure proposed the following resolution, which was carried:

That our delegates to the National Convention at Chicago be instructed to advocate an additional clause to the Constitution, requiring all applicants for membership to deposit the sum of one dollar on making their application, said sum to be forfeited to the Association unless said applicant comes forward within sixty (60) days from the date of his election as a member. In the event of his presenting himself and paying the additional amount required for his initiation, then the dollar previously deposited is to be applied to the initiation fee in due form.

There being no further business, the meeting adjourned at 9.45 P.M.

WALTER STEINHOFF, *District Director.*

THOMAS ALLEN, *Secretary pro tem.*

LOUISVILLE DISTRICT.

THE regular monthly meeting of this District was held September fourth. The meeting was called to order by the District Director. The minutes of the last meeting were read and approved.

J. H. Vestal proposed Mr. E. E. Moberly, of Ellettsville, Ind., for a member of this District.

The following persons were elected members, namely: Messrs. A. Eggleston, E. Cameron, John Swindell, and T. H. Berry, of Louisville; B. F. McCord, of Bardstown Junction, Ky.; G. D. Mentz, of Colesburgh, Ky.; W. L. Barth, of Gallatin, Tenn.; J. A. Rensley, of Edgefield Junction, Tenn.; and W. F. Ware, of Stevenson, Ala.

The Committee on By-Laws reported progress, and were granted until Thursday, September seventh, to make a final report.

A motion was made by Mr. Biggert, that the Committee on By-Laws be instructed to embody in the By-Laws a clause fining members one dollar and a half for absence from a meeting without a good excuse. Mr. Flanagan moved an amendment, making it fifty cents. Lost. Mr. Biggert's motion was carried.

Mr. Flanagan made a motion that a committee of three be appointed to examine the Constitution and By-Laws, and make such suggestions to the delegates as may be necessary, and make a report at a called meeting, Thursday, September seventh. Carried. Messrs. Purnell, Vestal, and Sheldon were appointed such committee.

Mr. F. G. Waddell, of Cumberland, Md., was granted a transfer to the Baltimore District.

On motion, adjourned, to meet in called meeting, Thursday, September seventh.

A. ELLISON, *District Director.*

J. H. VESTAL, *District Secretary.*

A CURIOSITY—the operator at the dépôt at Schenectady, N. Y., who never heard of THE TELEGRAPHER until we produced a copy to prove our calling. We heartily thank him, however, for promptly forwarding our "Dead Head."

THE UNITED STATES TELEGRAPH COMPANY.

The Tribune published the following reply to the letter from "A U. S. Stockholder," published in our last, prefaced by these editorial remarks :

"We publish in another column a reply, from Mr. James McKaye, President of the United States Telegraph Company, to an article on that Company in *The Tribune* of June thirtieth, which will interest its stockholders. In opening our columns to a controversy which concerns a large number of our readers, and therefore in a sense of public importance, we wish to be distinctly understood as taking no part in it, and, therefore, it is proper that we should correct the statement in the first paragraph of Mr. McKaye's letter. The writer of the first article is not a resident of this city, and delay was inevitable in communicating with him after his name was asked of us. As soon as a reply was received, Mr. McKaye was notified that the name was at his service on one condition—condition which it was proper for us to make—and he could have had it on advising us of his compliance therewith any time since Wednesday, the fifth instant. To our proposition sent on that day we have received no reply."

TO THE EDITOR OF THE NEW-YORK TRIBUNE:

SIR : The legal adviser of the United States Telegraph Company has, as you know, after repeated inquiry and nearly a week's delay, failed to obtain from you the name of a person who appended to an article in your issue of June thirtieth his signature as a "United States Stockholder," and who, throughout the article, assumes to be a stockholder of our Company. It is in character that he should desire to conceal his name. Darkness rather than light is the natural preference of a libeler.

The special reference of his article is to a proposed extension of the United States Telegraph Company's lines, recently contracted for, to the Pacific; and it seeks to persuade the public that the Directors of this Company, acting fraudulently, have made a contract for that extension injurious to the interests of the stockholders, but specially benefiting themselves and a selected few. It alleges further, against what it calls the "scheming managers," that, on the first of February last, they, pretending to pay a dividend from net profits, but having no net profits, did take from the capital stock of the Company the sum necessary to pay such dividend; which sum is stated to be four per cent on \$3,500,000.

Inasmuch as this last accusation relates to facts of prior date to the other, it shall be first noticed.

Our Company, in its present form, is of recent origin. It was organized on the third of August, 1864, under acts of the Legislature of the State of New-York authorizing such corporations; and it forthwith united, by purchase, assignment, and consolidation, the old United States line from New-York to Milwaukee and the lines of several other telegraph companies. These had been in operation for various periods, from six months to two years, and had at the time about ten thousand miles of wire. Our Company paid them in its shares—nineteen thousand in all; amounting, at par value, to \$1,900,000.

On this stock, and on no other, the Directors deemed it just, on the first day of last February, (by which time about twelve thousand miles of wire were up,) to pay a dividend out of part of the earnings of the lines thus consolidated. These earnings were, specifically, as follows :

August, 1864,.....	\$27,724
September, 1864,.....	31,111
October, 1864,.....	28,666
November, 1864,.....	29,993
December, 1864,.....	27,700
January, 1865,.....	33,662

Total, first six months,.....\$178,856

The above is nine and a third per cent on the stock in question, and the dividend declared was four per cent.

All this, of course, is on record on the books of the Company, accessible, at all times, to any stockholder.

Compare, now, in this matter, the official facts with the allegations and insinuations of one who is not ashamed to confess that, instead of procuring authentic information in the office in which, had he really been a stockholder, he would have had a right to demand it, he sought it in "other quarters," where he learned that "suspicion exists."

This anonymous scribbler asserts that out of \$174,184 of gross receipts for six months, (including one month in which the present Company had no existence,) the managers paid a semi-annual dividend of four per cent on three millions and a half of dollars; that is, \$140,000, leaving \$34,184 to pay expenses on twenty thousand miles of wire.

The exact facts, as above shown, are: that the managers paid out of \$178,856 of gross receipts, a semi-annual dividend of four per cent on one million nine hundred thousand dollars—that is, \$76,000; leaving \$102,856 to pay expenses on from ten to twelve thousand miles of wire. In other words, forty-two and a half per cent of the earnings was paid out in dividends on the stock which constituted the original purchase fund, and fifty-seven and a half per cent was reserved for expenses. Older companies than ours estimate the expense of maintaining their lines at less than forty per cent.

The public will judge what value to put on mendacious assertions that the Company

"can not pay a dividend from their earnings," and that the managers "go on making fortunes," while they "dole out to us" (meaning stockholders of the Company) "dividends from the money we ourselves pay in."

But the animus of this affair is still more clearly indicated by the terms of the comparisons instituted between our earnings and those of two rival companies. The statement is prefaced with the remark, that "the United States Telegraph Company's wires cover the same territory, substantially, as those of the Western Union and American Telegraph Companies," (the intended inference being, that our earnings and theirs ought to approximate in amount;) and then the article proceeds to show that the earnings of the two companies aforesaid had been, in the last six months of 1864, more than ten times as great as ours—say, \$1,791,415 to \$174,184. The figures are, as has been shown, incorrect; but the joint earnings of these two companies were, at that time, about ten dollars to our one.

It is but fair and proper here to state what amount of stock these two companies had issued and were paying dividends on at the beginning of this year. Common report puts the amount of their joint stock at nearly thirty millions. Low's Telegraph and Railroad Directory, however, states the stock of the Western Union (page 154) to be twenty-two millions, and that of the American Telegraph Company (page 150) to be two millions. Let us, then, suppose the entire stock of both companies, on which dividends were payable, to have been, in January last, twenty-four millions, it follows that their dividends were payable on more than twelve and a half times as much stock as ours. And it follows further, that their earnings for six months were less than seven and a half per cent on their stock, while ours were nine and a third per cent on our stock; that is, in each case, on the stock subject to dividend. If, following Lowe's Directory, we have over-estimated the stock of the two companies, our statement is open to correction.

Our last six months' operations show regular progress; our gross receipts (with the current month [of July] estimated from trustworthy data) being :

February, 1865,.....	\$42,199
March, 1865,	50,078
April, 1865,	56,085
May, 1865,	58,286
June, 1865, a trifle over.....	60,000
July, 1865, estimated.....	65,000

Total in six months,.....\$331,648

The amount of stock that will have been expended in construction, up to the first of August next, will be about \$3,500,000, and the above earnings amount to nine and one third per cent on that sum.

The object of our Directors, from the beginning, has been to meet the urgent public demand for increased telegraphic facilities, by constructing new lines and stretching many additional wires on lines already built. Having at the outset, with a view to equalize the price of shares in the hands of all shareholders, fixed the original subscription price of shares at two thirds of their par value, they found no difficulty in placing more than were required, and they have, at this time, at interest, a large amount of cash applicable to the construction of lines in progress. Their ultimate aim is to extend the lines of the Company wherever, throughout our country, telegraphic business is to be done.

They were prepared for the obstructions which rival interests have thrown in the way. This last libel in print is a trifle compared to a thousand verbal ones daily repeated; compared, too, to the various injunctions sued out against our work in Illinois and Ohio, and the fruitless attempt made last winter to prevent the passage in the Legislature of the latter State of a law granting us equal rights on the railroads.

Time elapsed before these impediments could be overcome, and they seriously retarded the completion of some of our lines. Thus, the line to St. Louis was completed only about three weeks since, while it is less than a week since we reached Cincinnati. Such delays, of course, have considerably diminished our earnings.

When one calls to mind the difficulties and drawbacks inseparable from the beginnings of an enterprise of such magnitude as ours, but more especially the persistent efforts certain to be interposed against it by monopolies unused to opposition, having almost unlimited command of capital, accustomed to control the entire field of operation, and to impose on the public their own conditions of service, without remedy or appeal; and when one finds, in spite of all such heavy drag-chains on the wheels, a new company like ours, entering at once on a career of prosperity so steadily progressive, it would be difficult to find more practical or more conclusive evidence that the people of this country have no love for overgrown corporations or overshadowing exclusiveness in any business, but will lend a willing hand and extend a liberal share of encouragement to those who assert the right of competition, and pursue an independent course.

We feel fully assured that popular favor will sustain us in the future as in the past, even though we may just have given new cause of complaint by contracting, without the fear of monopoly before our eyes, with parties too responsible to fail us, for an extension of our lines to the Pacific. And this brings me to speak of the first charge set forth in this tirade against the management of our Company.

The imputation is of the gravest character. A circular had been issued to the stockholders, informing them that they had the right to take, at sixty-six and two thirds dollars per share, one share of the Pacific Extension Stock for every two shares held by

them in our Company. Without pretense of evidence, except suspicion based on the fact that this circular did not specify the cost of the proposed extension line, a charge of gross fraud is brought against our managers. It is alleged that "while stockholders outside the 'ring' are expected to furnish all the money to build the line, a still larger amount of stock is to be issued to the members of the 'ring,' for which they are to pay nothing, or next to nothing." It is added that if all the stockholders subscribe under the terms of the notice, it "will give the managers thirteen hundred and thirty odd thousand dollars in cash, while the line, at a most liberal estimate, will not cost so much by several hundred thousand dollars."

I reply that, whether our stockholders subscribe one dollar or one million dollars to the Extension Stock, it will not give to the managers of the United States Telegraph Company one cent. That stock is to be purchased of the United States Pacific Telegraph Company, hereafter to be spoken of, and the purchase-money is payable to them. I urge no one to subscribe for a single share of this stock. It is the privilege of our stockholders to do so, at the rate named, if they see fit; and it was my duty to inform them of the fact. Several have already subscribed from \$50,000 to \$250,000 each. But if every one of them had declined, it would not have affected the interests of our Company in any way, except so far as it would influence the relative amount of stock held by our stockholders proper, as compared with that to be held by the members of the Pacific Company aforesaid, in virtue of a contract with them hereafter to be noticed; in other words, it merely affected the preponderance of influence as between these two classes of stock. It was, indeed, with a view to retain the control in the hands of the original shareholders that, in the above-mentioned contract, a provision was inserted securing to our stockholders the privilege in question.

I reply further that the slang term "ring," as employed above, has, in this case, absolutely no application whatever. Not a dollar of stock has been issued or is to be issued, whether to members of a "ring" or to any other selection of shareholders, either directly or indirectly, either in the present or prospectively, in virtue of, or in connection with this Pacific Extension. If, at any time, hereafter, the condition of the Company shall afford legitimate reasons for declaring stock dividends, (as other companies have done to a very large amount,) these dividends will be declared in favor of *all* our stockholders, without favor or exception. If the contract for the Pacific Extension is a good one, all stockholders are equally the gainers; if a bad one, all lose in proportion to the amount of stock they hold.

In point of fact, the only practical question is whether that contract, as finally concluded, is, as regards its rates and its terms, just and advantageous, or the reverse.

The facts in regard to this contract are, briefly stated, as follows:

An extension of our lines to the Pacific was, from the time of our organization, a favorite object. We had secured to us, by act of Congress, a right of way and a grant of land, and of other privileges and franchises advantageous in the building of such a line. The first attempt to contract was made in the beginning of the present year. After several weeks' negotiations, the basis of a contract submitted to the Board of Directors by a committee of their own appointment, was, with trifling modifications, unanimously adopted, and referred to the "Executive Committee," with instructions to conclude a contract in accordance therewith. Such a contract, after much deliberation, was drawn up, and referred to the President for execution. But the proposed contractor, disappointed in expected support, failed us, and the negotiation fell through.

In the mean time, there was organized a company, mainly controlled by influential members of the firm of Wells, Fargo & Co., and of the Overland Mail Company, under the name of the United States Pacific Telegraph Company, who had resolved to undertake the construction of such a line. They enjoyed facilities for the task equal or superior to any, and they had determined to prosecute their enterprise in any event, with or without connection with us.

After some negotiation, they offered us the same terms which the Board had already approved, and the contract was again referred to me for execution.

The advantage of contracting with such a Company, payable in our stock, if the contract could be effected on equitable terms, was apparent. Yet I held the matter for some time in consideration, and procured certain modifications in the contract embodying important privileges, of very considerable value to the stockholders, before I executed it, about two months ago.

To set forth in detail the terms and provisions of this contract would be manifestly out of place. It would be troubling you with a matter with which the public has no concern. Any of our stockholders who choose to apply to the proper officers can obtain every particular they may desire, whether in regard to this contract or to the other matters above set forth.

After weeks of negotiation, and of earnest and anxious thought, I consider myself fully competent to say, and thoroughly justified in saying that the extension contract, as it stands, is a bargain essentially equitable in its provisions, advantageous alike to ourselves and to the parties with whom we contracted, and so conditioned that, in its ultimate issue, neither class of stock is likely to bear an unfair advantage to the other, while each party has the great advantage which consolidation, instead of rivalship, affords. It gives me much gratification to know that, among the numerous influential stockholders of our Company to whom I have already had opportunity to explain the particulars of this contract there is not one who does not cordially approve it. It is due to myself to add that I have no interest to the extent of a single farthing, direct or indirect, im-

mediate or remote, in the company with whom we have contracted. And, so far as I know or believe, the same was, at the time of the execution of the contract, strictly true of all the officers and directors of the company with the exception of the two gentlemen who frankly put their names to the document in question.

Our real offense is, not that we made a contract detrimental to the interests of our stockholders, but that we made one highly beneficial to them—a contract that procures us a foothold in regions to which telegraphic competition had not yet penetrated, assuring us a first-class double-wire line, between three thousand and four thousand miles in length, starting from the cities of Chicago and Atchison, uniting at Fort Kearney, and proceeding thence, through the principal points in the rich mining districts of Colorado and Nevada, and the chief cities and towns of California, and giving us that connection with the Pacific, without which any great telegraphic enterprise must be unsatisfactory, because incomplete. Rounding and perfecting our system of operations, it places us on an equality with our competitors. Hence these tears.

JAMES MCKAYE, President U. S. Telegraph Co.

NEW-YORK, July 5, 1865.

P. S.—The authorship of the article to which the above is a reply, may suggest itself to some of our friends when they are informed that the following was telegraphed over the lines of our neighbors, June 30, as *Associated Press news*:

"*The Tribune* this morning publishes an important exposé by a stockholder of the United States Telegraph, concerning the proposed extension of that line to the Pacific, which is deeply interesting to capitalists and the public generally."

LIGHTNING ARRESTERS.

LIGHTNING ARRESTERS have attracted considerable attention of telegraphers from time to time, and many have been introduced, used for a while, and then thrown aside. None have been invented which have answered fully the purposes for which they were intended, and when we take a philosophical view of the subject, it seems quite difficult, if not impossible, to accomplish it perfectly. The desideratum to be arrived at is an arrester which will, at all times, carry off the great bulk of the atmospheric electricity, thereby preventing its passage into the helix or cable, and retain its arresting power unimpaired, and also leave the conductor uninjured. In other words, to separate the atmospheric from the battery electricity, convey the former to the ground, and secure the passage of the latter over the conductor, to the terminus of the line for which it was intended.

The one mostly in use at the present time is that of two plates of brass, separated by thin strips of glass, isinglass, hard rubber, or gutta-percha tissue; the upper plate forming a portion of the conductor, and the lower one being attached to the ground for the purpose of providing a medium for the atmospheric electricity to pass off, which it will do, provided the conductor does not present a better medium for its transit than the space between the plates. The plates being larger than the conducting wire, the question arises: Does not this plate become, so to speak, a reservoir for the electricity, and must it not become surcharged before it will leave the one plate and pass through the space which is non-conducting to the other? If so, it is plain that the principle of plates is erroneous. These plates, to be effective, must be placed as closely together as possible, and not touch, so that if the electricity does pass off in this way, it is almost sure to fuse the two plates, thus giving a ground circuit to the line.

If this theory is correct, there seems to be a field for the inventive genius of our telegraphic friends, and our telegraph companies should look carefully after any improvements that will supply the deficiency which now seems to exist.

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MAGNETIC OXYD OF IRON AS A PURIFIER OF FOUL WATER.—Any thing written by the discoverer of the electrotype merits respectful consideration. Mr. Spencer's chief purpose, in a recent pamphlet, is to recall the public attention to the merits of his method of purifying foul water by means of the magnetic oxyd of iron. Mr. Spencer's explanation of its *modus operandi* is that it ozonizes or polarizes oxygen, which then oxydizes the carbonaceous foulness of the water. Ozone may now be said to be ascertained to be nature's great scavenger. Whatever be the precise nature of the change which oxygen undergoes when it becomes ozone, it at all events acquires a powerful activity, which induces it to act vigorously on decaying organic substances, converting them into carbonic acid gas, which gentle acid is what gives water its value as a pleasant drink. Oxygen is ozonized naturally in various ways, as by lightning in thunder-storms; and, indeed, ozone has been regarded simply as oxygen excited by electricity into an active state. There are also influences at work in the strata of the earth which are believed to ozonize oxygen and so to purify water containing it while filtering through the strata. Doubtless the well-known deodorizing and disinfecting power of earth itself over sewage is attributable to the same cause; and above all other earths, Mr. Spener maintains the protoxyd or magnetic oxyd of iron, which is widely diffused, to be the best for such a purpose. There is something exceedingly feasible in this idea, and it may involve a discovery of vastly greater public importance than even the electrotype.—*Builder*.

DEATH OF A TELEGRAPHER.—N. T. Curtis, late receiving clerk of the Eastern Department of the American Telegraph Company, died at his residence in Brooklyn on Sunday afternoon, third instant, after a short but severe illness. Mr. Curtis has been well known by the telegraphic community, since the first introduction of the telegraph into public use, as a courteous and affable gentleman.

THE NORTH-ATLANTIC TELEGRAPH.

(CONTINUED.)

"AFTER riding eight miles along a fine level path, we turned to the north-west, and commenced the ascent of a steep hill, up which we had not gone half-way before we were in a thick fog. Fortunately, we had engaged a guide, otherwise it would have been difficult to have kept the proper track.

"It was half-past nine, and very dark, when we arrived opposite to Bru, where we had to cross a river on one of those curious swing-bridges, before reaching the house.

"Our day's ride had been long and fatiguing, but there were only two parts of the road by any means difficult; the first being the ascent of the hill in the early part of the day already mentioned, and the other where we descended to a small stream, about seven miles distant from Bru. In both instances the ground is of such a nature that the paths are capable of easy improvement. The heavy rains had made a portion of the road rather swampy.

"Sunday, 19th.—Taking with us a guide, we started for Mödrudalr. For twelve miles our course was north, we then turned to the westward, which we kept all the way to Mödrudalr, where we arrived at half-past six. The roads were good throughout the day's journey, and we passed great quantities of dwarf willow. At eight miles from Mödrudalr, we traversed a perfectly desert plain, flat as a bowling green, and covered with black sand and gravel, the *débris* of lava.

"Mödrudalr is situated in a beautiful plain extending to a long distance north and south. Far to the south, at least forty-five miles off, you see one of the peaks of Vatna Jökull, having a deep snow-filled cleft in the centre. Within fifteen miles to the southwest is Herdubreid, one of the highest mountains in Iceland.

"20th.—We left Mödrudalr at nine A.M. Our course during the whole day's travel was north, with a very little westing. The road was good, and we arrived at Grims-tadr, twenty-five miles distant, at half-past two P.M.

"21st.—We arrived at the ferry on the Jökulsa Axarfjörðr at 9.15 A.M., which is four miles from Grimstadr. The river is one hundred and fifty yards wide, the water deep, and the current very strong. The banks of the river are of fine black sand. The water was white and muddy, bearing the characteristics of a river that has its source from a jökull or glacier. Its west bank is nine hundred and fifty-one feet above the sea-level. When we had ridden sixteen miles from the river, we arrived at an immense bed of very rugged lava in a valley to our left, and in one place there was an appearance as if it had filled up the bed of a river. We rode for seven miles along this lava.

"Before reaching Reikialith, we had ridden among or close to the most recent lava we had seen. The only object I could compare the rough lava beds to, except in color, was a field of ice that had been floated at high-water to a low, flat beach, covered with large boulder rocks, which, when the tide ebbed, broke up the ice into all sorts of forms. Reikialith is situated on the shores of Myvatn, (Lake,) which is very irregular in form, and studded with rugged lava islands. Our course to-day was nearly west, and the distance traveled fully thirty miles.

"22d.—The first portion of the route was crooked, to avoid holes in the lava which were overgrown with moss and grass. A ride of six and a half hours, including an hour of stoppage to graze horses, brought us to the ford of Arndisarstadr, on the Skial-fandaflot. It was about one hundred yards wide, two feet deep, the current strong and the water white and muddy. We reached Hals in the evening.

"Hals is in latitude 65° 44' N., and was the farthest north point reached by us. I learned that, during the winter, snow occasionally falls to great depth, and is blown into deep drifts. The cold is not usually severe, the lowest temperature being 20° or 21° below zero of Reaumur, equal to 13° or 15° below zero of Fahrenheit, and this occurs but rarely.

"On Thursday, 23d, we resumed our journey. After traveling south two miles along the small river that flows northward past Hals, we forded the stream. We crossed to the west the ridge of hills about nineteen hundred feet high, that lies between Hals and Akreyri. This last-named place is next in size to Reikiavik. Akreyri is built at the head and on the west shore of Eyjafjörð. Its harbor is sheltered by a spit of land that runs half-way across the fiord where its width is about a mile. From the beginning of November to the end of March or April, the navigation is usually closed by ice; but during the summer months there is considerable trade at this place. The valley is one extensive and productive grass meadow running southward for nearly thirty miles, on which a great number of persons were occupied hay-making. The river I found to be navigable for boats drawing about two feet of water, to the distance of twenty-five or thirty miles. Its width varies from twenty-five to eighty yards. The path was good and level, fitted for a wagon in summer, or for a sledge in winter.

"Early in the evening we came to Saurbær. We here made our arrangements for the next three days' journey, which lay through an uninhabited part of the country.

"24th.—From Holar, the path led us south for four miles along the east bank of the stream; we then commenced an ascent of the high grounds in a south-west direction. The hill was twenty-eight hundred and sixty-eight feet in height, being the greatest altitude we had yet passed over. We reached the top in an hour and a half. Although the road was now pretty level, and many of the larger stones had been removed to one side, the path was not good enough to permit us to ride fast.

"We made many detours so as to avoid the rougher portions of the ground, but the

general direction of our travel was to W.S.W. In the evening, a thick fog came on, and as the cairns of stone set up as marks became less frequent, the guide lost his way, and I had to put him right by the compass.

"25th.—Our position by computation was in latitude 65° 8' N., longitude 18° 53' W. Height by observation above sea, twenty-three hundred and eighty-five feet. The fog still continued this morning, but not very thick. We had to put back a short distance to recover the proper route; we then crossed a small white-water stream, very rapid and stony, named Jökulsa Eystri. Our course was generally S.W. by W., marked by little heaps of stones.

"Two observations for height were obtained to-day. One at Polar, latitude 65° 5' N. 19° 2' W., gave altitude twenty-three hundred and sixty-eight feet; the other, six miles S.W. of Polar, twenty-four hundred and sixty-three feet. Both these places afford good grass and water for horses. In latitude 64° 45' we crossed nearly two miles of very rough lava, extremely difficult to travel over. A small amount of labor would remedy this evil. Further on, we passed quagmires of very adhesive clay. These, by a little care, can be easily avoided.

"Between the latitudes of 65° and 64° 45' N., and in longitude 19° 20' W., we crossed a number of rivers, very rapid and some of them two feet deep, flowing from Hofsjökull, which lay to our left. Many of these streams appear to change their beds, or to spread out to considerable extent during thaws or rainy weather, and could be crossed with difficulty by a telegraph wire, were it not that I noticed that at some points the water was kept within bounds on both sides by solid barriers of rock or lava, generally not more than twenty yards apart.

"26th.—Our position by account was in latitude 64° 40' N., longitude 19° 33' W., and height above sea, nineteen hundred and eighty-three feet. It was ten o'clock before we got away. Our road was better than for the past two days, and we went ahead faster. About half-past three P.M., we arrived at the Hvita River, a mile or two below its source from Hvitavatn, having come twenty-two miles, down-hill, the incline being very gradual. The altitude here was fifteen hundred and eighty feet.

"The river, which is one hundred and twenty yards wide, could be forded by the horses, but they were very nearly swimming. We traveled westward for five miles round the base of the craggy and lofty Blafell. We now passed over a ridge four hundred feet higher than the ferry on the Hvita.

"From this point we had a very extensive view of more than fifty miles down the valley of the Hvita, with its numerous lakes and boiling springs, the clouds of white vapor from the latter indicating their positions. We now made a south course, and at the end of seven miles again came to the banks of the Hvita, along which we found an excellent path, over which we trotted at a great rate until late.

"We reached Haukadalr at a little before six on the twenty-seventh.

"After breakfast at Haukadalr, we rode for sixteen miles further on our way to Reikiavik, and then took up our night's quarters at Laugarvatn. Near this house are several boiling springs of very pure water, which are used for cooking.

"We arrived at Reikiavik at eight o'clock on the morning of the twenty-ninth of August, all well, but our horses very much used up by a journey of nearly four hundred and fifty statute miles.

"The results of this journey went to prove that there would be no serious difficulty in carrying a telegraph across Iceland by the route traveled over. Doubtless considerable expense would be incurred in repairing the old paths, so as to make them more easy for loaded pack-horses, and in making new ones to shorten distances; but this work will be materially facilitated, as the Icelandic Diet has appropriated a considerable amount of money to be paid annually for this purpose. The six largest rivers that we crossed had high, well-defined banks, that showed no indication of ice action or of changing their position.

"A shorter, and in every respect a better route across Iceland for telegraphic purposes than the one described, is that marked on the chart in a dotted line. This route, from Berufjörð as far as Mödrudalr, in latitude 65° 17' N., longitude 16' W., is nearly the same as that followed by us. From this point, instead of running northward, it strikes nearly west for forty-five miles, over what is said to be not a difficult country, to Isholl, a farm on the Skialfanda river. Following up the west bank of this stream to near its source, you cross the centre of Iceland in a south-westerly direction, by the Sprengisandr road, until you fall upon the head-waters of the Thorsa. Trace this stream to south-west, keeping on its left bank, to avoid the numerous jokull streams that enter it on the right, until reaching latitude 64° 20', where the river would be crossed. The course then would be west to the Hvita and the Geysers. On nearly fifty miles of this route there is little or no grass, but dépôts of hay can be established. Having measured on the charts four different routes from Berufjörð to Reikiavik, the distances are about as follows:

	Geographical miles.
Route traveled over, cutting off several unnecessary detours,.....	310
By contemplated telegraph route, <i>via</i> Sprengisandr,.....	250
In a straight line, keeping north of Vatna Jökull,.....	210
Along south shore of Iceland,.....	260

"The modes of transport through Iceland are by pack-horses, wagons, and in winter on sledges. Of these the pack-horse is by far the most general. These little animals

are remarkably sure-footed, and so strong that they can carry a load of two hundred or two hundred and fifty pounds with apparent ease. They are easily kept in condition with no other food than grass or hay. Their prices vary from £2 to £3, those for riding being more expensive. The pack-saddle in general use is an extremely primitive affair, the pads employed to protect the back from being injured being composed of turf which has been well dried, and a portion of the mould beaten out of it. Boats might be used with advantage on some of the rivers.

"The population of Iceland amounts at present to some sixty thousand. At one time it is said to have been as high as one hundred thousand, but the ravages of epidemic diseases and other causes reduced the numbers to less than those at present on the island.

"The masses of the people are able and active, harmless and honest. Wherever we went, we were received with much kindness and hospitality, and even at the poorest cottages, milk, coffee, and brandy were handed to us. All classes seem more or less educated, and the Lutheran religion prevails. The chief occupations of the people are fishing and farming, both being combined when the farms are near the sea. The women spin, knit woolens, and weave cloth for home consumption. The farm live-stock consists of sheep, ponies, and horned cattle; the two last are of small size. Of these, the sheep are the chief source of wealth. A farmer having eight hundred or a thousand sheep is considered wealthy. The usual food is mutton, fish, (fresh and dried,) rye-bread, butter, cheese, milk, one preparation of which, named *skuer*, is much used.

"The price of labor varies from 1s. 2d. to 2s. 8d. per day, according to the season. During the haymaking, in the months of July, August, and September, it is highest.

"Reikiavik, the capital of Iceland, (a town of fifteen hundred inhabitants,) has been so often described by others that it is needless for me to say any thing on the subject. A little thin ice forms along shore near Reikiavik during calm weather in the winter time, but the first breeze of wind disperses it.

"**GREENLAND.**—The Fox sailed from Reikiavik on the thirty-first of August, for Greenland. On the second of October we reached Fredrickshaab.

"There is a Danish superintendent, a clergyman, and several clerks at this place, and about two hundred Esquimaux. These Esquimaux are civilized—sober, honest, and faithful, apt and willing to be instructed, attentive to their religious observances, and thankful for kindness. The evening amusement was dancing. The principal food of the natives is fish, seal, whale, a few ptarmigan, water-fowl, including eider duck, with biscuit and coffee, imported from Denmark. Large quantities of a small fish, (the keeling,) called by the Esquimaux 'amaset,' are caught in scoop-nets in the summer, and dried on the rocks. These are laid up for winter food, and sometimes given to the cattle.

"After lying here eighteen days, the Fox sailed on the twentieth of October for Julianshaab, at which place she anchored on the evening of the twenty-second. Julianshaab is one of the principal stations on the coast.

"On the twenty-fourth, I learned that it had been decided to sound and examine the Fiord of Igalko, which ran by Julianshaab. During the time that the Fox would be employed on this service, which I was told by Captain Young might probably occupy four days, I thought with Colonel Shaffner that a short journey should be made to the interior of the country, for the purpose of ascertaining the practicability of traveling over it. The use of one seaman and a whale-boat were obtained from Captain Young, to enable us to return from the head of the fiord to Julianshaab. Four Esquimaux women were engaged as rowers. At sixteen miles inland from the fiord, a heavy fall of snow stopped further travel. After an absence of four days, we returned to our boat, but found that the fall of snow, followed by unusually cold weather, had already caused the fiord to freeze up for many miles. We had enough of provisions, and were supplied with some excellent fresh mutton, milk, and butter, by an Esquimaux that lived in the neighborhood, to whose house we removed. The frost continued for several days with unusual severity, and made the ice strong enough to enable Captain Young (after coming half-way up the fiord in a boat) to travel over the ice with a sledge-party from the Fox, to our relief. Another party of men, sent by Superintendent Möller from Julianshaab to aid us, arrived at the same time. We all returned next day (the sixth) to the Fox.

"The result of this expedition, as far as regards the land portion of it over the Færöe Isles and Iceland, was extremely favorable to the practicability of laying down or erecting a telegraphic wire. The question in Iceland will be, whether the telegraph should be carried across the whole island from Berufjord to Faxe Bay, or only from Portland Bay to the latter place. The latter will reduce the distance on land from about two hundred and fifty to ninety miles."

THE FIORDS OF SOUTH-GREENLAND.—Mr. Tayler then read the following, namely:

"I have been desired by the promoters of the North-Atlantic Telegraph to give you a short description of the fiords of South-Greenland, and to point out the advantages they offer to the landing of the cable on that coast.

"Any one who has traveled in Norway will have an idea of the leading characteristics of fiords in general; but as many of the Society have probably not had that opportunity, I will endeavor to describe, as well as I can, the general appearances of fiords in Greenland.

"The land of Greenland is very elevated, the average height of its mountains being not less, perhaps, than fifteen hundred feet, and in some places exceeding six thousand

feet, above the level of the sea. It appears that at the time of the elevation of the west coast of Greenland, a chain of mountains of about fifty miles in breadth, running about north and south, was acted on in a wave-like manner—that is, leaving depressions nearly equal to the elevations, and more or less at right angles with the direction of the chain. These depressions or long valleys into which the sea runs constitute the fiords; they vary in breadth from one to eight miles, and run up into the interior from ten to sixty or more miles.

"The scenery in these fiords is magnificent, perhaps unequaled. The lofty mountains—rugged, precipitous, and barren—with patches of ice, (projections from the great interior glaciers,) and snow unmelted by the summer's sun; with valleys half filled up by enormous angular blocks of stone detached from the sides of the steep mountains by the alternate frost and thaws; the solitude, and the almost total absence of life, animal and vegetable, make up a picture of indescribable desolation.

"In other places, the more rounded and sloping mountains are covered with green and yellow moss. Grass, heath, and wild flowers grow in the valleys; whilst in some still more favored and sheltered dales, miniature forests of Arctic willow six feet in height are pointed out by the Esquimaux as proofs of the extraordinary excellence of the climate of Greenland and fertility of the soil. Of the latter material there is not, however, in many places sufficient to bury the dead, and they are compelled to place the body on the surface and form a grave by building up stones around it.

"These fiords with grassy dales offer the most pleasant places of abode in Greenland; in fact, it is only to the more fertile parts of the fiords that the name of Greenland is at all appropriate. But these parts of the fiords form a striking contrast to the outer coast of Greenland.

"The Danish settlements are mostly at the entrance of the fiords, for the convenience of seal-hunting and of shipping; but the old Scandinavians who settled in Greenland in the ninth century brought cattle with them, and therefore established themselves at the interior ends of the fiords and bays, where grass was to be found.

"The fiords of Greenland are about to witness a new era of enterprise and engineering skill. Ere long the North-Atlantic Telegraph Cable will repose at the bottom of one of its fiords, again uniting with Europe the countries of Iceland, Greenland, and America.

"In the neighborhood of high land, the water is generally of great depth, and the fiords of Greenland form no exception to the rule; in fact, it is only near the lower and more sloping land that vessels can lie at anchor, and this only in small coves so near to the land that it is the general practice to make fast to the shore by hawsers. Outside of this the water deepens rapidly, and in the middle of many of the fiords there are some five hundred fathoms water; I should say that of the deeper fiords, three hundred fathoms will be found to be the average depth. In some places, where the rocks are nearly perpendicular, a fishing-line of one hundred fathoms fails to reach the bottom within a few yards of the shore.

"Looking at the map of Julianshaab's district, you will see that some of the fiords terminate at the continental ice, whilst others do not reach it; the former fiords have glaciers, the latter have not.

"These glaciers are the outlets of the continental ice, which has a motion from the interior toward the sea-coasts, and as the deep valleys or fiords are the only outlets, the ice is forced into them, until, by projecting from the land into the sea or fiord, portions give way and break off, owing to not being sufficiently supported by being adequately immersed, or owing to the rifts and chasms which exist in the glacier. The larger of these portions, when thus detached from the glacier, constitute icebergs.

"The glaciers in the fiords of the southern parts of the west coast of Greenland are not very large, and consequently their icebergs are never of great dimensions. I do not think any iceberg produced by the glaciers of the fiords within one hundred miles north or south of Julianshaab would ground in sixty fathoms.

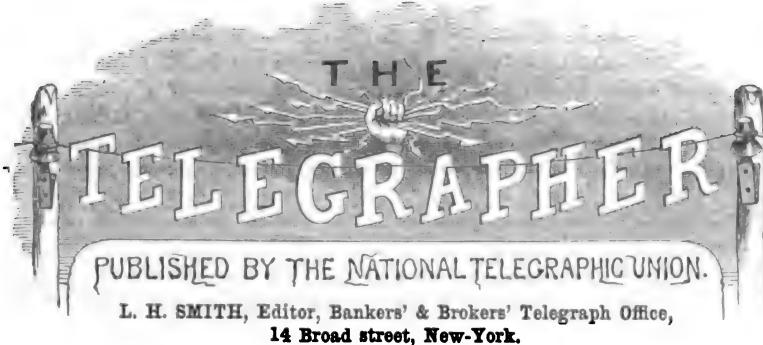
"The glaciers bring down with them boulders, sand, and much fine clay, the result of attrition. The boulders are always rounded, owing to the severe abrasion they have undergone by being transported over the rocks below, whilst under the enormous pressure of the vast thickness of continental ice. This glacial clay floats suspended in the water, several miles from the glacier, rendering it turbid or milky, and depositing itself gradually throughout the whole length of the fiord. So vast has been the quantity, and so long the period of time during which this transport of clay has proceeded, that some fiords have been so completely filled up by it that they are only navigable in boats of light draught and at high-water.

"From this choking up of the fiord, the glacier has ended in being unable to longer launch its icebergs; it has therefore found a new outlet through some other valley, where it will repeat the process of gradually filling up the fiord.

"As nearly all the fiords have, or have had, glaciers in them bringing down the clayey deposits I have mentioned, the bottom must be of soft material. If the cable be taken into a fiord having a glacier, I think the clay which will be gradually deposited over it will be of great service in protecting it from injury by marine animals or other damaging agents.

(TO BE CONTINUED.)

BROWNSVILLE, Texas, dates of the sixteenth ultimo state that a telegraph line would be completed in a few days to connect Brazos with Brownsville.



MONDAY, SEPT. 25, 1865.

OUR NEW YEAR.

WITH this number, THE TELEGRAPHER commences the second year of its existence. It is not our intention or desire to make promises which may not be fulfilled, but we desire to express a hope that with the experience which we have gained, strengthened by faith in its continued prosperity, THE TELEGRAPHER will, this coming year, be better, more acceptable, and far more interesting than it has been during the last twelve months. Therefore we earnestly hope the Convention will not bind us to one narrow course by disabling provisions added to the present "Review bill." The constant changes taking place prevent us from adhering throughout the year to laws passed at the beginning.

THE TELEGRAPHER enters upon its new year under pleasant auspices. Subscriptions continue their steady flow, and old subscribers are coming forward generously with their renewals for another year, and send us many pleasant words of praise of and encouragement for the paper. Nor are our advertising patrons behind our subscribers. They come generously forward in their old happy way, and order their cards continued in the only telegraphic newspaper extant.

With all these pleasant and encouraging signs, we begin our year's labor with a more cheerful and a lighter heart than when we took our first infant step, *without one cent* wherewith to pay the expense of publication. We hope and pray to be spared from passing again through the agony of the first number of our first paper.

THE CONVENTION.

As we write, the second Convention of the National Telegraphic Union adjourns to meet in Baltimore one year hence. Although overtaken by an unfortunate circumstance, we feel confident much good will come out of it.

It was unfortunate the discovery was not made earlier of the meeting of the Illinois State Fair at a time to overshadow our meeting with its broad wings, and we consider it equally unfortunate that the postponement was not extended until November or December.

A strong conviction seized us last year that the first of September was ill-chosen for the annual gathering of the fraternity. It comes right upon the heels of the summer vacations—a time when the employés of the large offices can the least be spared. We were strongly tempted to urge a postponement, or at least the alteration of the Constitution so as to have the meeting-day occur at a more convenient period, but concluded to wait and see whether this Convention proved our conviction correct or erroneous.

Quite a number of the delegates were unable to attend the postponed meeting, which was unfortunate. We are more than ever convinced that our meetings should be held earlier or later in the year.

With the drawbacks which have been hitched to the wheels of this Convention, we consider the delegates have done the Union signal service, as well as themselves credit. Although few in num-

bers, and adjourning on the first day, to allow the delayed members to arrive, they have transacted the business which was before them with remarkable quickness. Experience has taught them the value of time and the proper way to use it. The publication in THE TELEGRAPHER of the proceedings of the several Districts contributed, no doubt, to the general understanding and success of the delegates.

We feel sure that there was more real, earnest work in the present than any former Convention, and it will redound to the credit of the delegates that they completed in two days the same amount of work which closely occupied the last Convention three days.

The composition of the meeting, so far as we are able to judge, is equal, if not a trifle better, than the last. There has certainly been more *general*, earnest work than ever before.

The result of the election for general officers quite meets our approval, and could not have been bettered had we engineered it ourselves.

The measures passed had the benefit of two years' experience, and will, we hope, prove less faulty than some of the previous ones.

We earnestly hope the next meeting will finish up the amending of the Constitution and By-Laws; for they ought, by that time, and after three years' use, to be as perfect as human foresight can make them. We should cease making its provisions shifting as the sand, but rather as enduring as the hills.

The delegates were entertained, on the evening of the adjournment, with a generous supper, given by the Chicago District. We hope to be furnished with a graphic account of this entertainment, but will have to regret the want of space to give the speeches made thereat.

MR. PRESIDENT, AND MEMBERS OF THE CONVENTION: It is with much diffidence that we rise to return you our sincere thanks for the honors which you have seen fit to confer upon us, who stands before you while our words tremble upon our lips.

While thanking you for your generosity and the honor, allow us to assure you that we shall enter upon the performance of our new duties with the same purpose, zeal, and faith which have characterized our devotion to the cause and success of our Association for the last two years.

No one of you perhaps knows better than we how many vexations and heart-burnings lie buried beneath the announcement which reaches us this hot September morning. Having lived through (pardon us if we say successfully) the first year's issue of this paper, we feel quite sanguine of successfully meeting and disposing rightly of the new troubles which will probably meet us in our untried position.

While still treading a path which has grown familiar, we find ourself stepping upon new ground. To pass over it safely, you must one and all help us to sustain the new burden which you have placed upon our willing shoulders.

While overshadowed with a fear of the responsibility which you have placed us under, by putting into our hands the strings of the purse of our Association, we remember the happy vote which you gave, allowing us to dip in our hand just once and extracting \$—.

Gentlemen: We again return you our thanks, and beg leave to express the hope that the cars of Juggernaut will convey you safely to your homes. Please accept our best bow while we resume our seat.

THE delay in issuing the present number of this paper was caused by the vast amount of writing which the Secretary *pro tem.*, Mr. Vestal, of the Convention, had thrust upon him, thus preventing him from furnishing us at an early day the first day's proceedings, with the several official reports.

We shall commence, next month, issuing THE TELEGRAPHER semi-monthly, on the first and fifteenth of each month.

THOSE of our subscribers who fail to receive this number of the paper may generally take it for granted that their subscriptions expired with the August number. We cordially invite all expired subscribers to revive themselves.

The largest portion of our subscriptions expire with the present issue; all those for one year, commencing with the second number, and those for six months, commencing with number eight.

DISTRICTS have been formed at Indianapolis and Cincinnati.

OUR remarks on the cable manufactured by the Bishop Gutta-Percha Company for the Bankers' and Brokers' Telegraph Company, in our last issue, were misunderstood. "The old and first Fortress Monroe cable" was sent to Mr. S. C. Bishop, General Agent of the Bishop Gutta Percha Company, for stripping, and not to us, as some of our readers understood us to say.

The former Company have a specimen of deep-sea cable now on exhibition at the Mechanics' Institute Fair, now open in Fourteenth street, near Sixth avenue, this city. It is our intention to examine this piece of cable, and give a description thereof in our next.

THREE telegraphers, named James E. Tristes, of New-Brunswick, C. E. Northrup, of New-York, and John Bulkley, passengers on the steamship Brother Jonathan, were lost when this steamer was wrecked on her recent passage from San Francisco to Portland, Oregon.

Two new lines of telegraph were opened on the second instant: the Bankers' and Brokers', from this city to Baltimore, and the Insulated Lines, to Boston, both using relay sounders—the former, Clark's Box Sounders; the latter, those manufactured by Williams, of Boston.

The Insulated Lines office is the most richly fitted up of any we have ever seen, it being finished in black walnut and chestnut.

WE acknowledge the receipt of an invitation to the "Complimentary Supper to the Delegates of the National Telegraphic Union, Wednesday evening, September thirteenth, 1865, with the Compliments of the Chicago District," given at the Briggs House, Chicago, and very much regret that circumstances of much importance prevented our being present, as we intended. We hear most glowing accounts of this very enjoyable affair, which deepens our regrets.

Also, an invitation to a wedding reception given by Mrs. C. Jenkins, at Wartrace, Tenn.

Also, several copies of the Chicago *Times* and *Tribune*, containing a synopsis of the proceedings of the Convention just held.

Also, a copy of the Prospectus and Fourteenth Annual Commencement and Distribution of Premiums of the Santa Clara College, San José, Cal.

Also, a copy of *The Printer*, published monthly at 172 William street, this city, at \$1.50 per year.

THE Directors of the Atlantic Telegraph Company have unanimously accepted the offer of the Telegraph Construction Company to manufacture and lay down a new cable and complete the present one so as to have two perfect cables between Ireland and Newfoundland next summer.

The manufacture of the new cable has commenced, and the work is being done with the utmost care.

Captain James Anderson received an offer from the telegraph company to command the Great Eastern for five years in laying cables, and accepted of it.

Mr. Cyrus W. Field arrived home in the steamship Australasian on the twentieth instant.

Lieutenant Gamble, R. N. of H. M. S. Urgent, in a letter to *The Halifax Express*, says the Urgent passed the locality where the cable buoys are reported to have been placed, and with the best lookouts, officers, and men, saw none of them. He concludes if the Great Eastern's reckonings were correct, the buoys must have parted from the cable, and are drifting about the ocean.

DE SAUTY.

AN ELECTRO-CHEMICAL ELOGUE.

Professor. Blue-Nose.

PROFESSOR.

TELL me, O Provincial! speak, Ceruleo-Nasal!
Lives there one De Sauty extant now among you,
Whispering Bosanerges, son of silent thunder,
Holding talk with nations?

Is there a De Sauty ambulant on Tellus,
Bifid-cleft like mortals, dormant in night-cap,
Having sight, smell, hearing, food-receiving feature
Three times daily patent?

Breathes there such a being, O Ceruleo-Nasal?
Or is he a *mythus*—ancient word for "humbug"—
Such as Livy told about the wolf that wet-nursed
Romulus and Remus?

Was he born of woman, this alleged De Sauty?
Or a living product of galvanic action,
Like the *acarus* bred in Crosse's flint solution?
Speak, thou Cyano-Rhinal!

BLUE-NOSE.

Many things thou askest, jack-knife-bearing stranger,
Much-conjecturing mortal, pork-and-tracle waster!
Pretermit thy whittling, wheel thine ear-flap toward me—
Thou shalt hear them answered.

When the charge galvanic tingled through the cable,
At the polar focus of the wire electric
Suddenly appeared a white-faced man among us:
Called himself "DE SAUTY."

As the small opossum held in pouch maternal
Grasps the nutrient organ whence the term *mammalia*,
So the unknown stranger held the wire electric,
Sucking in the current.

When the current strengthened, bloomed the pale-faced stranger—
Took no drink nor victual, yet grew fat and rosy;
And from time to time, in sharp articulation,
Said: "All right, DE SAUTY!"

From the lonely station passed the utterance, spreading
Through the pines and hemlocks to the groves of steeples,
Till the land was filled with loud reverberations
Of "All right, DE SAUTY!"

When the current slackened, drooped the mystic stranger—
Faded, faded, faded, as the stream grew weaker—
Wasted to a shadow, with a hartshorn odor
Of disintegration.

Drops of deliquesce glistened on his forehead,
Whitened round his feet the dust of efflorescence,
Till one Monday morning, when the flow suspended,
There was no De Sauty.

Nothing but a cloud of elements organic,
C. G. H. N. Ferrum, Chor. Flu. Sil. Potassa,
Calc. Soda. Phosp. Mag. Sulphur, Mang. (?) Alumin, (?) Cuprum, (?)
Such as man is made of.

Born of stream galvanic, with it he had perished!
There is no De Sauty now there is no current!
Give us a new cable, then again we'll hear him
Cry: "All right, DE SAUTY!"

BOILED WIRE FOR TELEGRAPH.—Boiled wire is used by some telegraph companies, and the process of preparing it is thus described: "The wire, in coils, is placed in a large iron caldron, filled with linseed oil, and boiled about fifteen minutes, when it is presumed to be 'done.' By this process it receives a coat of glazing which preserves it from rust. The wooden blocks or braces by which the insulators are placed are also boiled, but in a different material. They are made of sycamore-wood, and are boiled—one hundred at a time—for a period of one hour in ordinary coal-tar. The effect of subjecting the sycamore to this process is to render it secure against warping or cracking from sun or rain."—*Telegraphic Journal*.

Correspondence.

SEDALIA, Mo., July 1865.

TO THE EDITOR OF THE TELEGRAPHER:

PLEASE allow me to ask of the readers of THE TELEGRAPHER if they all agree with Mr. Stearnes's theory of "Electricity and the Resistance of Relays," as published in Nos. 8 and 9 of THE TELEGRAPHER?

Do all your readers think that electricity goes round a curved wire like a human person running round a circle?

Is it the general belief that electricity gives out sooner if the wire is not straight? Does not the great difficulty of running round a circle disappear when we come to try an imponderable body?

Is it the experience of observing operators that instruments burn more readily in curved than straight wires, if the same "cut-offs" or grounds are equally adjacent to both?

Is it reasonable to suppose that because we feel no heat on the straight wire, there is none there?

Would we, if the curved wire was but a single strand?

Is it not more probable that electricity gives out both heat and magnetism at all times, but that until it is cumulated by adjacent wires it is nearly or quite imperceptible?

I must say that I never yet saw a relay but grew stronger as well as warmer by every cup of battery attached. I have never been able to reach the point where heat increased so much more rapidly than magnetism.

I have been led to the following conclusions from observation: That where I made two relays of the same material, the one subjected to the greatest pressure on the surface of the conducting metal offered the most resistance. And before the Atlantic Cable was first attempted, I had stated to several of my friends that the pressure of the mass of water in which it was submerged would cause the current to move with difficulty through it, although before it was laid, a single cup worked the whole length of circuit. But I am not able to see why or how the simple curving of wire can have the effect described by Mr. Stearns. A curved wire is best for producing magnetism simply because by so doing we can better subject a piece of metal to the concentrated effect of several wires.

But I have made magnets of sufficient power to test with, simply by causing a current to pass over several *straight* wires above and below a piece of soft iron, taking care that the circuit passed in a different direction above from that below. In this case, magnetism could not have been due to a curved line.

Fearing that I am trespassing upon your patience, I will simply subscribe myself as open to see my ignorance and adopt more correct views, whenever these points are satisfactorily explained.

MISSOURI.

PHILADELPHIA, June, 1865.

TO THE EDITOR OF THE TELEGRAPHER:

A SUBJECT discussed in a late meeting of this District, to wit, the propriety of changing the name of our Society, is one upon which I should like to see a general expression of opinion.

In the debate referred to, no decision was arrived at, but it was plainly shown that the change was, for many good and substantial reasons, very desirable. "Telegraphic Association" was suggested as a substitute for "Telegraphic Union." The last, in my humble judgment, is strangely inappropriate; and without any wish to question the good sense of those who fixed upon it as suitable, yet I can not but think it was too hastily selected.

The name "Telegraphic Union" implies a combination of telegraphers for the purpose of controlling the working policy of telegraph companies, and I would warn the craft that they will find to their cost, when they come to make application for a charter, that the name alone will be the point upon which all opposition will hinge. This matter should be freely canvassed among operators, and the delegates to the Convention fully prepared to act on that occasion, for the subject will, in all probability, be brought before that body.

UNO.

OLYMPIA, WASHINGTON TERRITORY, May 25, 1865.

TO THE EDITOR OF THE TELEGRAPHER:

I BEG leave to call your attention to what I believe is an error, in your issue of October thirty-first, 1864. In an article on the "Pacific Telegraph," you assert: "The first inception of this great enterprise dated from the year 1859, when the measure was first brought to the attention of Congress." Justice to the memory of a pioneer telegrapher—and one of the noblest of them all—prompts me to correct your history. James Eddy, Esq., of Ithaca, N. Y., (at the time of his decease, in 1858, Superintendent of the American Telegraph Company,) I believe was the father of the Pacific Telegraph. As early as 1851 or 1852, himself and associates were before Congress with a programme for the construction of a line to the Pacific, and, if my memory is not greatly at fault, a bill passed that body granting the right of way and lands for the construction of stations, etc. The plan was to bury an insulated wire. From the want of confidence in telegraphs among capitalists, the enterprise was never entered upon, and the matter rested until revived by the company at present in charge of our trans-continental wire.

....

[We are glad . . . vindicates the memory of Mr. Eddy, and we have an indistinct recollection that his statement is correct. If we desire to ascertain who the earliest father of the Pacific Telegraph is, we must go still further back, for the Hon. Henry O'Reilly's claim dates in 1848 and 1849.—ED.]

TO THE EDITOR OF THE TELEGRAPHER:

PHILADELPHIA, July 8, 1865.

Is there a more contemptible thing in human shape than what is known in telegraphic circles as a "shirker"? We have some of these animals in our office, and, as is almost invariably the case, they are men (?) of narrow minds, and, as a consequence, persons of little or no character in or out of the profession. Can not something be done to induce these "mud-sills" to lift themselves above such littleness, and become something near what Nature intended them? Or must those who are disposed, from principle and habit, to do right, be annoyed and imposed upon by these stumbling-blocks to progress, moral, social, and otherwise?

TORPEDO.

[This kind is beyond human aid.—ED.]

TO THE EDITOR OF THE TELEGRAPHER:

NEW-YORK, July 4, 1865.

You are no doubt aware I have taken great interest in the success of your monthly journal, THE TELEGRAPHER, and, with a view to increase as much as possible its circulation, have solicited subscriptions from our leading telegraph gentlemen and my immediate friends amongst the craft, and it is with pleasure I now inclose you the one hundred and twenty-fifth subscriber.

Now that the review has proved itself a worthy and well-supported journal, I hope the day is not far distant when it will be issued semi-monthly.

The American Telegraph Magazine was the pioneer, and, I believe, *the first publication in the world*, devoted exclusively to telegraphic subjects. It was issued monthly. The first number appeared in October, 1852. Donald Mann, Esq., was the editor, though in reality I am informed the publisher was the late Captain Henry B. O'Reilly, (son of the Hon. Henry O'Reilly,) who fell in the early part of the recent rebellion, while serving his country with the Excelsior Brigade. There were six regular numbers published, when it ceased. It was followed up by *Shaffner's Telegraph Companion*, also a monthly, which also lived but a few months. Then, immediately on the heels of this last, or about the same time, sprung up *The Telegraph Review*, a monthly magazine, edited by Mr. J. D. Reid; but like its predecessors, for the want of patronage it survived but a short while—some few months only.

The first issue of *The Annales Telegraphiques*, printed in Paris, made its appearance in 1858. It is published every other month, beginning with February, and is still continued, with increasing popularity and subscriptions. *The Electrician*, the first publication exclusively devoted to telegraphy, which was published in London in 1863, survived about a year, then gave up the ghost. It was followed on the first of January, 1864, by *The Telegraphic Journal*, also a weekly, which, for a general want of patronage on the part of English telegraphers as a body, died on the last day of December, 1864. I was informed by a friend residing in London, the last-named journal would be replaced by another, to be named *The Galvanometer*; but so far, nothing further has been heard.

It will no doubt be a source of pleasure to your many readers to know the various opinions of some of the leading telegraph gentlemen throughout the country. The following are a few:

Professor Samuel F. B. Morse, in subscribing for several copies, closes his note by "wishing the proprietors success in their laudable undertaking." In private conversation with Mr. R. E. House, a short time since, he said: "I think well of the Union and the Monthly Review." Mr. James Gamble, the General Superintendent of the California State Telegraph Company, San Francisco, says: "I am pleased to see an organ of the operators fairly under way, and I hope they will give it the support that it deserves. I inclose you forty subscribers. Our operators all seem to be well pleased with THE TELEGRAPHER, and I think we will be able to make up a list of sixty subscribers." The Secretary of the above Company, Mr. G. S. Ladd, also closes thus: "As a telegrapher of many years' experience, I join with Mr. Gamble in wishing the enterprise the success that it merits." The Hon. Henry O'Reilly, of New-York, one of the earliest projectors and constructors of telegraph lines in this country, states: "Having suggested and aided the *first publication* devoted to telegraphing as a speciality, (*The American Telegraph Magazine*,) it will afford me pleasure to witness the success of any journal devoted to the same important subject in all its length and breadth." Mr. M. L. Wood, General Superintendent of the United States Telegraph Company, New-York, in inclosing his subscription, says: "I shall be glad to favor your project." Mr. J. J. S. Wilson, Superintendent Eastern District Illinois and Mississippi Telegraph Company, Springfield, Ill., closes: "I do not see why a paper of this kind should not be a success, and receive the support of all interested in telegraphy." Mr. A. H. Shillingford, of Philadelphia, says: "As I stand up for the craft, you may book me as a subscriber." Mr. John Allen, Manager of the office in Sacramento, inclosing several subscriptions, closes "with sincere wishes for the prosperity and firm establishment of the Telegraphic Union."

I have also received subscriptions, with favorable notices, from Messrs. O. S. Wood, of Montreal, Colonel A. Stager, of Cleveland, T. Basnett, of Ottawa, Ill., O. E. Wood of Ithaca, N. Y., Peter Cooper and Cyrus W. Field, of New-York, and many others.

CORNUCOPIA.

THE ATLANTIC TELEGRAPH.

"GREAT EASTERN, Aug. 16, 1865.

"A. A. LOW, Esq.:

"MY DEAR SIR: I have no doubt that you will read with some interest the opinions of a sailor whom you know, respecting telegraph cables across the Atlantic, and especially as to the cause of our present failure. I was formerly a doubter; then, as I became intimate with the men and means to be employed to overcome all the difficulties I had thought of, I became hopeful; but now that I understand personally the difficulties in the way of practically laying a cable in an ocean of great depth, I have become sanguine.

"The cable has failed for the *present*, principally from the cause of its own wires penetrating the gutta-percha core, and that cause has been so far fatal only because it was unanticipated. I mean by that, if we could have foreseen this probability, and sufficiently understood the action of this ship, appliances could have been arranged that would have recovered the faults without the elaborate process that past experience has taught to be efficient.

"They can generally tell immediately when a fault occurs. Very little—only a few miles—is necessary to be hauled in; for this purpose the cable has to be passed from the stern to the bow of the ship—at the best of times a hazardous thing to do, and in this very long ship a difficult operation. An engine applied to the paying-out gear, so as to reverse and haul in at once before the cable had reached the bottom, and while the fault was being located, would have reduced our three faults to a very small risk. So that even this cable, which in all other respects seems perfect, can be efficiently laid when we have obtained the appliances our new experience has taught to be necessary.

"It was never anticipated that we should have to attempt the recovery of a lost cable from the depth of two and a half miles, and for the same reason we failed. Our grapping gear was inefficient.

"Three times out of four attempts we hooked the cable and raised it from the ground several hundred fathoms. Upon two occasions the swivels of the grapnel-rope broke, and upon the third occasion, our rope, which was made up of ship's stores added on to the proper rope; and when we had once more begun to be hopeful, if not sanguine, a good-looking six-inch rope broke like a thread. This much, however, we have established: we can have the cable whenever we choose; and we fairly believe that, with proper appliances, we can lift it and complete its laying.

"No one can be blamed for not anticipating this unfortunate result. Every kind of experiment had been tried, and the wire had never before penetrated the core. This and some other aspects seem to have fixed the idea in some of the leading minds that the faults have been the result of malice. I incline to the opinion that they were the result of accident, as I know by experience that accident will produce more curious results than design, and they are as easily explained one way as the other. But this follows, that appliances should be used that would prevent such fatal results, whether produced by one cause or the other. This can be done hereafter by machinery we now know how to construct, and the additional security can be had of making those wires of a number of smaller ones, so that no one would be sufficiently strong to penetrate the core; or, if necessary, cover the core with canvas of wire-gauze, to make it still more secure.

"This done, there can really be no difficulty with this ship in laying submarine cables all round the world.

"It would be a long and useless story to tell you how our hopes alternated between hope and hopelessness during the ten days that we grappled, and hooked, and lost the dear old thread. Our backs are very much up, and all of us long to recover the cable and restore our *prestige*. I have become positively eager, and hope circumstances will admit of my finishing what I have begun.

"My opinion now is, that the companies interested in the success of this cable are really upon the point of success. I have a fear they may be disheartened, and no wonder; but another attempt can not fail, humanly speaking. We know the cable is perfect in its insulation, or capacity for transmitting messages; we know it has the right specific gravity and the right strength; and we know it only fails in one point, that of wounding itself; and even if that can not completely be overcome with our new experience, we know how to meet it, recover and repair it.

"I dare say the hope will be thought visionary by many. Yet, in your own interests, I hope all concerned will at once order a new cable to be made and completed by May. The Great Eastern could then sail, lay it with *certainty*, and in the same season pick up and complete the one for the present abandoned.

"This would be, beyond all question, the best way now to economize the affairs of all the companies embarked in this enterprise; and my regret is, that a number of capitalists were not here to imbibe the confidence that experience has given all of us engaged in it.

"At all events, the attempt should be made to pick up the cable, and there is as fair a prospect of success as there can be about any thing not yet accomplished.

"We are returning to England, with the hope that capitalists will see it as we do. Mr. Field is buoyant and hopeful beyond us all; he would at once go at the picking-up, and I would like to indulge his wish. But we can not possibly get the necessary appliances in the way of machinery, wire-rope, and complete the necessary repairs to the well-used boilers of this ship, within two months. It would probably be more—could not be less; and there is every probability that the winter gales would drive us from our work, and without the sun we could not find our fishing-ground.

"As these opinions are, in substance, what all engaged upon this enterprise really feel, there is no reason why you should not read them to any whom you may think they would interest.

"With kindest regards to you and yours, I remain, my dear sir,

"Very truly yours,

JAMES ANDERSON."

TELEGRAPHIC MISCELLANEA.

THE RUSSIAN TELEGRAPH EXPEDITION.—The bark Golden Gate, the flag-ship of the Russian telegraph expedition, and the steamer G. S. Wright, with Colonel Bulkley, commander of the expedition, his staff, and a number of employés, sailed on July twelfth for the Gulf of Anadir and shores of Behring's Straits. The land force of the expedition comprises about fifteen hundred men. Three other vessels are attached to the service: the bark Palmetto, which recently sailed from Nanamo with coal; the schooner Milton Badger, now loading at Nanamo; and the bark Clara Bell, now *en route* from New-York to Sitka, direct. The Clara Bell carried a cable to be laid across Behring's Straits, and a small steamer for river exploration. Colonel Bulkley himself will examine the Gulf of Anadir for the best crossing-place to Asia. It is four hundred miles wide, with an island in the middle. The land work is to go on at once on the whole line, from New-Westminster to near the mouth of the Amoor River, a distance of four thousand miles.

THE rooms of the Commissioners of the new Fire Department of this city are now in direct telegraphic communication with Police Headquarters, and likewise with the different stations throughout the city.

THE wires of the American Telegraph Line between Boston and Springfield were seriously affected by the Aurora Borealis on Wednesday, the second ultimo, and during Wednesday night the Aurora was so resplendent that, in Hartford, persons were able to see the time of night on the church-clocks after the moon had gone down.

The St. John (N. B.) Journal of the fourth ultimo says: "Yesterday, the atmosphere was so surcharged with electric matter that messages were sent over the telegraph wires, between Sackville and Calais, without the use of the electric batteries—a circumstance of very rare occurrence."

ELECTRICITY AS AN UMBRELLA.—The last wonderful discovery made is that by a Frenchman, that electricity applied to a certain small apparatus repels rain, and he places that electrical apparatus in his cane, which he holds above his head, when the rain pours off in all directions. The people of the town in which he lives gaze upon him, it is said, with a sort of awe, as he walks in the midst of rain without being wetted. The days of umbrellas are over!

MOBILE BAY was cleared of obstructions by means of torpedoes and a galvanic battery. The torpedoes were let down among the obstructions, and then exploded by means of an electric wire. About a mile of sunken barges and boats, filled with stones and old iron, were blown up in this way.

A SUBMARINE TELEGRAPH BETWEEN CUBA, THE UNITED STATES, AND MEXICO.—The Queen of Spain has granted to a Spanish-Franco company the right to lay down a submarine cable from the island of Cuba to Porto Rico, and from Porto Rico to Saint Thomas, the coast of the United States, the isthmus of Panama, and Mexico. That company is to submit to the Spanish government a plan of the lines along which the cable will be established, the cable and apparatus to be used in the operation, as well as the rules and regulations of the telegraphic service. The government will reserve to itself the right to modify or approve the aforesaid plans, decide as to the respective rights of the company and of the State, and determine whether or not the telegraphic lines will be free to public adjudication. The members of the company are Arlivio de Marcuartu, the Marquis of Mariano, the Count Saint Esteban de Canongo Michel, Chevalier Ferdinand de Jesseps, and Leopold Wemer.—*The World's Paris Corr.*

A TELEGRAPHIC line is now open and used for military purposes all the way from this city to Galveston, Texas. The route is *via* Fort Smith, Little Rock, Camden, Shreveport, and Houston. That portion of the line between Camden, Ark., and Galveston, was built by the rebels, and a connection was formed by building a new line from Pine Bluff to Camden. It seems that, although the wire through Texas was built at the expense and for the use of the rebel government, a claim to its receipts has been set up by an obsolete Arkansas company, and allowed by the officers of our Government at New-Orleans who have hitherto controlled the line. This matter should be looked into. There is a screw loose somewhere, and somebody is receiving a snug sum which of right belongs to the United States Treasury. The line now open to Galveston will probably be extended to Brownsville in a few weeks, and thus place the Government in direct communication with its officers on the Rio Grande.—*St. Louis Tribune*.

DEPARTURE.—Mr. J. N. Ashley, for two years past associate correspondent of *The New-York Herald* in this city, has relinquished his position upon that paper for the purpose of accepting an important post in the United States Telegraph Company, and leaves town to-night. Mr. Ashley had charge for some time of *The Herald's* correspondence from the Army of the Potomac, and will give the new company, already extending its lines throughout the South and to California, the benefit of a thorough knowledge of the requirements of the press for the transmission of news, as well as of long experience as manager of telegraph lines. *The Herald* loses a most valuable *attaché*, and one who enters upon his new duties with the best wishes of all who know him.—*Washington Star*.

THE TELEGRAPHER.

THE Secretary of War, in his Report for 1864, says:

"There were in operation during the year sixty-five hundred miles of military telegraph, of which seventy-six miles are submarine."

"One half of the above, or three thousand miles, of which thirty-eight were submarine, was constructed during the war."

"About one thousand persons have been constantly employed in this service."

"One million eight hundred thousand telegraphic messages were transmitted during the year."

"The average cost of these messages, therefore, charging the whole yearly expense of construction, maintenance, and operation to them, would be only thirty cents."

GREAT PRIZE IN VOLTAIC ELECTRICITY.—The French Government has just announced the renewal of the grand prize of fifty thousand francs to be given, in five years' time, to the author of a discovery which shall render the voltaic pile economically applicable as a source of heat, as a means of lighting, or otherwise, in chemistry, mechanics, or medicine. This prize was awarded, in September last, to M. Ruhmkorff, for the well-known apparatus which bears his name. In case no invention deemed worthy of the honor should be brought forward within the time specified, the period may be prolonged for another five years by decree. The prize is, we believe, open to all the world, but it is not so stated.

THE Persian Gulf telegraph cable is repaired, and telegraphic communication is re-established.

NOTA BENE.—Our friends and correspondents will please note the change in our address, and send all dispatches, communications, and packages to the care of the Bankers' and Brokers' Telegraph Office, No. 14 Broad street, New-York. Our inability to secure a post-office box forces us to inflict this long address upon the indulgent public.

Those persons who have suffered neglect at our hands during the last week of August and the first week of this month, will, we hope, forgive us when we plead "In the country" as our excuse.

THANKS.—Our hearty thanks are tendered to the following-named gentlemen: Mr. E. L. Whipple, Director of the Albany District, for favors generously shown; Messrs. Ostrander, of the W. U. Company's, and Halstead, of U. S. Company's offices at Lyons, N. Y., for cheerfully forwarding our numerous dispatches during our stay at the home of our childhood.

SEVERAL DOLLARS REWARD will be paid for the capture and conviction of the degraded rascal who so kindly relieved us of the burden of a small traveling-bag on board the North River steamboat St. John, on the night of the twenty-fifth of August last.

We will gladly pay the full money value of the bag and its contents if the unhappy and ill-conditioned wretch will return us unharmed the dressing-case, opera-glass, and black box contained therein. Money couldn't buy these.

APPOINTMENTS AND CHANGES.—Captain H. J. Rogers, of Baltimore, formerly Superintendent severally of the Morse, Bain, and House lines between this city and Washington, inventor of the American Code of Marine Signals, lately of the U. S. Navy, has been appointed Superintendent and Engineer of the Bankers' and Brokers' lines.

Mr. Sue Smith, formerly of the American Company's Bangor, Me., office, and lately Night Manager of the same Company's office in this city, has been appointed Manager of the Philadelphia office and Superintendent of the Philadelphia and Pittsburgh Division of the Insulated Lines Company's lines.

Mr. G. B. Prescott, author of *The History of the Telegraph*, is appointed Superintendent of the Montreal and Harlem Districts of the American Company's lines, vice Whyland, furloughed, and Dodge, ordered to report at "these headquarters."

Mr. C. E. Ways, formerly of the Baltimore and Ohio Railroad line, appointed chief operator of the U. S. Company's Baltimore office.

Mr. J. J. G. Riley, formerly of the American Company's line, appointed chief operator of the Bankers' and Brokers' Company's Baltimore office.

The following changes have taken place: Messrs. O. W. Willis, L. S. Watkins, of the American Company's, New-York, and C. W. Crumbacker, of the Baltimore, and David Deances, of the People's office, this city, have accepted positions with the Bankers' and Brokers' Company respectively. Messrs. F. Seibert and H. Bertram, of the American Company's office in this city, have gone with the Insulated Lines and U. S. Company's offices respectively.

Mr. A. H. Seymour has resigned his position as Manager of the U. S. Company's St. Louis office.

AN "INSULATED" BUT AN UN-BEARABLE BULL—Calling the Bankers' and Brokers' Company's lines the "Bulls' and Bears'" Telegraph.

THE CALIFORNIA LINE.—*Omaha, N. T., Thursday, Sept. 7, 1865.*—The overland telegraph line to California is in excellent working order.

RAILROADS and telegraphic wires are being run through many portions of Chili.

PATENT CLAIMS.—49,254.—**ELECTRIC GAS LIGHTERS.**—Edward J. Frost and George A. Lawrence, Springfield, Mass. Antedated July 24, 1865:

We claim the combination of an electric magnet with a valve, D, or its equivalent, when applied to the pipe of a gas-burner and operated by means of the axial bar, G, as set forth.

Second. The valve, D, as described, when used in combination with the axial bar, G, or its equivalent, substantially as described.

49,452.—**INSULATOR FOR TELEGRAPH WIRES.**—Henry H. Ward, assignor to S. F. Van Choate and Stuart Gwinne, New-York City:

I claim, 1st. An insulator for telegraph wires, etc., provided with a dead-air chamber, d, substantially as and for the purpose set forth.

2d. The combination of the plug, A, cup, C, and hook, B, constructed and operating substantially as and for the purpose described.

49,585.—**ELECTRO-MAGNETIC TELEGRAPH.**—Robert Boyle, assignor to himself and Giuseppe Tagliabue, New-York City:

I claim, 1st. The alphabet disk, A, in combination with the revolving traversing paper cylinder, D, and punch, F, constructed and operating substantially as and for the purpose described.

2d. So arranging the perforations in the paper that each of them, by its peculiar position in relation to the perforations representing the starting point of the message, and to the preceding and succeeding perforations, which position is governed by the revolving and traversing motion of the paper cylinder or by any other equivalent means, represents a specific letter or sign, substantially as and for the purposes set forth.

3d. The combination of the screw-spindle, C', and spring, C, with the revolving metallic cylinder, B', and perforated paper containing the message to be transmitted, substantially as and for the purpose specified.

4th. The electro-magnet, F', and stop-pawl, k', in combination with the cylinder, B', carrying the perforated paper, and with the spring, V', constructed and operating substantially as and for the purpose set forth.

5th. The division-wheel, G', constructed as described in combination with springs, q, q*, q', q**, q***, paper cylinder, B', electro-magnets, A'', and horse-shoe magnets, B'', constructed and operating substantially as and for the purpose specified.

6th. The combination of the electro-magnet, A', and horse-shoe magnet, B', with the clock-movement of the receiving instrument, constructed and operating substantially as and for the purposes herein specified.

7th. The forked arm, a2, and escapement-wheel, b2, in combination with the oscillating horse-shoe magnet, B'', type-wheel, D'', and clock-movement, U'', constructed and operating substantially as and for the purpose set forth.

8th. The sleeve, c2, carrying the escapement-wheel, b2, and hair-spring, d2, in combination with type-wheel shaft, f2, wheel, g2, pinion, i2, crown-wheel, j2, and oscillating fork, a2, constructed and operating substantially as and for the purpose described.

9th. The method substantially as herein described of regulating the motion of the type-wheel by means of a clock-work and of an escapement-wheel to which motion is imparted by a hair-spring, substantially as set forth.

10th. The combination of the sharp-pointed type with the type-wheel, D'', and with the printing mechanism, constructed and operating substantially as and for the purpose set forth.

11th. The escapement-wheel, j2, and electro-magnet, K2, in combination with the dog, t2, arm, u2, spring, v2, and printing-block, F2, constructed and operating substantially as and for the purpose set forth.

12th. The combination of the oscillating horse-shoe magnet, B'', electro-magnet, K2, escapement-wheel, j2, type-wheel, D'', and printing-block, F2, constructed and operating substantially as and for the purpose described.

13th. Covering up the strip of paper containing the message immediately after printing the same, substantially as and for the purpose specified.

14th. The roller, n2, carrying a series of points, and applied in combination with the take-up roller, m2, substantially as and for the purpose described.

15th. The oscillating shaft, z2, carrying the dog, b8, and arm, y2, in combination with the wheel, w2, escapement-wheel, j2, and type-wheel, D'', constructed and operating substantially as and for the purpose set forth.

16th. The stop-pawl, k', electro-magnet, F', and perforated strip of paper containing the message, in combination with the oscillating horse-shoe magnet, B'', electro-magnet, K2, and printing mechanism, constructed and operating substantially as and for the purpose specified.

WESTERN UNION TELEGRAPH.—The receipts of the Western Union Telegraph Company, from all sources, for July, 1865, were \$239,854.23, and for the corresponding month last year, \$181,288. Increase, \$58,566.23. The total earnings from January 1 to July 31, 1855, were \$1,737,540.33, and for the same time in 1864, \$1,148,329.83. Increase, \$589,210.50.

THE RUSSIAN-AMERICAN TELEGRAPH.—*Chicago, Monday, Sept. 4, 1865.*—A message from McClellish, dated the thirteenth ultimo, says the Russian-American Overland Telegraph Company's bark Clara Bell arrived at Sitka June fourteenth, making the voyage from New-York in one hundred and thirty-five days, touching at the Cape de Verd Islands for water. She brought out on deck the small propeller steamer Lizzie Horner, for the use of the expedition on the interior waters. Every thing arrived in good order and all on board were well.

Sitka, Aug. 18, 1865, via New-Westminster, Tuesday, Sept. 5, 1865.—The bark Clara Bell will sail from here to-morrow for New-Westminster.

The schooner Milton Badger will also sail for Anadyr Bay to-morrow, with an exploring party on board, and full supplies of equipment. This party will be the advance explorers of the route from the Anadyr River to the Amoor.

The bark Golden Gate will also sail for Fort St. Michael and the Youkon River with the steamer Lizzie Horner on board. The parties who will explore the Youkon River are all on board the Golden Gate.

The steamer Wright will also sail for the mouth of the Youkon River and the Gulf of Anadyr. Colonel Charles S. Bulkley, Engineer-in-Chief of the Overland Telegraph Expedition, goes on the latter, and after directing the preliminary operations of the exploring of the Youkon, will proceed to Anadyr and Behring Straits.

Every thing pertaining to the great expedition is progressing favorably, and the Russian officials at Sitka have extended every aid in their power. The health of the Expeditionary Corps is excellent.

San Francisco, Thursday, Sept. 7, 1865.—News from New-Westminster to the fifth instant says the telegraph is now completed three hundred and seventy miles northward from that place.

THE Congregation of Sacred Rights, at Rome, has just published a form of blessing to be used by telegraph. The clergy are to assemble at a telegraph station, where a certain amount of chanting, etc., is to be done, and prayers put up, in which, among other appropriate passages from the Scriptures, is this, from the one hundred and fourth Psalm: "Who walketh upon the wings of the wind; who maketh his angels spirits, his ministers a flaming fire."

The Nord says: "The failure of the Great Eastern has not discouraged the shareholders of the Transatlantic Cable Company, or the new French Company which has obtained permission to lay down a cable between France and the United States. M. Alberto Bilestrini has undertaken this enterprise at his own risk. But this time the Company does not intend to submerge the cable for any enormous distance, as there will be intermediate stations. The following is the track at present contemplated: From Paris to Lisbon, and thence to Cape St. Vincent, by land; from this last place to the Canary Islands, along the coast of Morocco; from the Canary Islands to Cape Verd, along the African coast, with stations at St. Louis (Senegal) and at Goree; from Cape Verd to Cape St. Roque, on the coast of Brazil—a distance of less than one half that of the cable intended to be laid by the Great Eastern; from Cape St. Roque to Cayenne, along the American coast; and from Cayenne to New-Orleans by the coast, or probably by cables connecting the principal West-India islands. The enterprise is more easily practicable than that conceived in England. The only difficulty will be to secure the preservation of the line on the African coast, and that security may be obtained by means of guard-stations. The Company will have a concession for one hundred years, and the French Government will abandon the right of making any other concession during that time. A subvention of four millions of francs, payable by instalments, will be granted when the Company shall have obtained the authorizations from all the Governments over whose territory the electric cable is to pass. The electric communication between Paris and the Canary Islands is to be completed within three years, and the whole line within five."

THE Emperor of Mexico has conceded to Mr. Charles J. Arnoux, who represents various New-York capitalists, the privilege of building telegraph lines, which will connect Toluca, Morelia, Ramora, Barca, Guadalajara, Tepic San Blas, Mazatlan, Culiacan, and Guaymas, with San Francisco; another reaching from Mazatlan to Durango, Chencamé, Parras, Villa Aldamas, Cerralvo, and Camargo, and another from Manzanillo to the city of Guadalajara.

The terms of the telegraph contract oblige the successful capitalists to complete, within eight months, at least two hundred and ten kilometers of the telegraph line. The line from Mexico to San Blas must be finished in two years, and all the lines in five years. The builders have the monopoly of these lines for fifteen years.

THE ATLANTIC CABLE.—The steamship Great Eastern arrived at Crookhaven on the seventeenth of August. She behaved in the most admirable manner, and sailed from Crookhaven to Sheerness.

The Atlantic Cable prospects are generally regarded as hopeful. The quotation of shares has improved three quarters per cent.

The Directors of the Telegraph Construction and Maintenance Company are so confident of being able to lay successfully a submarine cable from Ireland to Newfoundland, and of recovering the end of the present cable, that they have offered to contract with the Directors of the Atlantic Telegraph Company to make and lay, during the summer of 1866, an entirely new cable, and complete the old one, so as to have next year two efficient telegraph lines between Europe and America. All who were on board the Great Eastern have unabated confidence in complete success next year.

THE United States Telegraph Company are now building a line along the Pacific Railroad, intended to connect St. Louis with St. Joseph, and ultimately extend to the Pacific Ocean. This Company will proceed at once to construct a new line *via* Omaha, Nebraska Territory. The wire has been purchased for the line, and twelve hundred miles of it are under contract, to be completed before the close of the present season. The poles for the balance of the line will be cut this fall, and the line will be completed and in operation within one year.

GOVERNMENT carpenters were set at work a few days since to convert the old telegraphic office inside Fortress Monroe into quarters for Jeff Davis; but yesterday orders were issued to stop that work and prepare Carroll Hall building.

A WARSAW journal announces that the plan for a telegraphic line between Russia and America has been approved and signed by the Czar. The Russian Government undertakes to complete the line as far as Nicolajewsk, the remaining portion, from Nicolajewsk to San Francisco, being at the charge of the American Company. The capital of the latter amounts to \$10,000,000, and bonds representing \$8,434,600 have already been issued. It is intended that this route shall be finished in five years.

The Telegraphic Journal contains an illustrated description of a new mode of laying submarine telegraph cables, invented by Captain Selwyn, of the British Navy, which seems to have some merit. The cable is not carried on board of a vessel, but wound upon a large floating drum, which is towed astern of a steamer by ropes. On the end of the drum are paddle-wheels, which are set in motion by the act of towing the drum along, and so caused to make it rotate upon its axis and let off the cable. Provision is made for catching and holding the cable some distance astern of the vessel and drum, in case of breakage. The same kind of drum may also be used for picking up a damaged cable.

THE Associated Press contract with the American Telegraph Company for the transmission of news expires on the thirty-first proximo. The Association has issued circulars to the several telegraph companies to send in their bids for a new contract on or before the first proximo, to Mr. S. H. Gay, of *The Tribune*.

THE REPRINT of the first number of THE TELEGRAPHER is now ready for delivery. Price, seventeen cents for single copies; three copies for fifty cents; six copies, one dollar.

MARRIED.

In Williamsburgh, Va., August 14, by the Rev. H. S. Taylor, Mr. M. S. Andrews, operator U. S. Military Telegraph, to Miss Georgianna Gilliam, of Williamsburgh, Va.

In Freeport, Ill., August 24, George T. Williams, Superintendent M. & W. Telegraph Lines, to Miss Sarah A. Clark, of St. Louis, Mo.

In Omaha, Neb., August 29, by the Rev. Mr. H. Kuhns, Captain R. C. Clowry, Superintendent U. S. Military Telegraphs South-West, St. Louis, to Miss Gussie Estabrook, of Omaha.

In Tuesday, 5th instant, Mr. D. J. Ludwig, of Harper's Ferry, Va., to Miss Annie Schuster, of the same place.

In Keokuk, on the 5th instant, at the residence of the bride's father, by the Rev. W. G. Craig, Mr. W.

B. Wilson, Superintendent N. C. R. W. Telegraph, of Harrisburgh, Pa., to Miss Sadie A. Ulrich.

In Wartrace, Tenn., on the 7th instant, by the Rev. Mr. Woodbury, Mr. T. E. Rawlings, operator on the U. S. Military Telegraph Lines, Department of the Cumberland, and formerly of Dwight, Ill., to Miss Sallie Jenkins, of the former place.

In this city, on Wednesday, September 20, at the pastor's residence, by Rev. Joseph H. Price, John C. Christie to Miss Elmira V. Gueual, all of this city.

DIED.

In Brooklyn, L. I., on Sunday, September 3d, Nehemiah T. Curtis, in the forty-fifth year of his age.

QUOTATIONS OF TELEGRAPH STOCK.

CORRECTED BY JOHN MORNER, CASHIER, AMERICAN TELEGRAPH OFFICE, NEW-YORK.

Western Union,.....\$100 shares....75	Montreal,.....\$100 shares, 115 gold
American,.....".....140	Nova Scotia,.....20 "
Russian Extension,.....".....30	Vt. and Boston,....50 "
Ill. and Miss,.....\$50.....par	Troy & Can. June,..50 "
East-India,.....".....".....".....	Maine,.....50 "
United States,.....\$100.....".....by the Company,.....52	.....17 50
Bankers' & Brokers',.....\$25 shares,.....".....".....	.....par
Insulated Lines Co.,..\$50.....".....".....	.....par

PHOTOGRAPHS OF PROFESSOR MORSE.

A FEW copies of a large-size photograph—8×10 inches—of Professor Morse, giving name and birthplace, can be obtained by addressing the Editor of THE TELEGRAPHER, care of Bankers' and Brokers' Telegraph, No. 14 Broad street. Price, one dollar each.

GREAT REDUCTION IN PRICES.

THE

BISHOP GUTTA-PERCHA COMPANY,

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Reduced the Price of their Manufactures

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SAMUEL C. BISHOP, General Agent.

Office and Salesroom, 201 Broadway, New-York.

SEPTEMBER, 1865.

The Telegrapher:

PUBLISHED BY THE

NATIONAL TELEGRAPHIC UNION.

THE UNION is an association of telegraph operators, for their own mutual benefit and support, and THE TELEGRAPHER is published to disseminate information among its members, as well as general telegraphic news.

THE TELEGRAPHER is published in New-York, on the last Monday of every month, and besides matters of associate interest, is devoted to the interests of telegraphers all over the world, and will contain telegraphic information from all parts of the globe.

It is not confined to any one policy, but will seek to correct abuses, give honor and praise wherever and whenever due, and endeavor to elevate the standard of operators, both morally and scientifically.

It will not support any one person or corporation, but will aim to treat all alike, censuring either or both, when merited, and praising alike when praise is won.

Its columns will not be open to any one for personal abuse, nor for personal profit at the expense of others, nor will it contain any thing that the most fastidious would not read.

THE TELEGRAPHER will contain Original Articles upon any and all subjects of interest to the fraternity and profession; Extracts from Works on Telegraphy, Electricity, and Magnetism; Statistics; Improvements in Telegraphy, Telegraph Instruments, and Materials; Correspondence; Poetry upon Telegraphic subjects; Telegraphic Literature; Incidents and Items of Personal Interest; Promotions; Removals; Resignations; Marriages and Deaths of Telegraphers; Newspaper Extracts of Telegraphic Items from any and every city, town, State, or country.

We invite the co-operation from every one who is directly or remotely connected or interested in Telegraphy, in this undertaking to establish and maintain a first-class telegraphic newspaper, and for any items of news or personal telegraphic interest, articles or newspaper extracts upon any of the above-mentioned subjects. We will cheerfully pay a reasonable sum for any trouble and expense gone to in behalf of this paper, and for any original articles which we may use.

We request aid from all, whether high or low, and will make a fair return for the same.

THE TELEGRAPHER is a medium quarto of sixteen pages, (the last four of which will be devoted to Advertisements of Telegraphic Materials, or any other respectable business,) with clear type and on good paper. It will aim to be a first-class telegraphic newspaper, and not to be surpassed in the vigor and spirit of its editorials, nor in the variety and freshness of its reading matter generally. On all subjects which it discusses, it will aim to be correct, independent, clear, conscientious, and fearless.

Whatever the experience of its conductors—whatever industry, energy, and a liberal expenditure of money can accomplish toward making a good and powerful paper, are pledged to the subscribers of THE TELEGRAPHER.

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Club rates are not allowed to District Directors unless for persons not members of the Union.

The paper will always be discontinued when paid subscription expires.

Remittances for subscriptions may be made by mail, in National currency, at our risk—the attention of the Postmaster being called to the mailing of the letters; but Post-Office orders or drafts on New-York being safer, are preferable.

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NO ADVERTISEMENT INSERTED FOR LESS THAN	50 "

Leaded advertisements are charged for the actual space occupied.

Advertisements of Patent Medicines are charged double rates.

Advertisements of Quack Doctors excluded.

We have no traveling agents, nor has any one authority from us to collect money for subscriptions but Postmasters or others who may interest themselves in procuring subscribers at our advertised rates, and remitting us the money, will receive our thanks—and an Extra Copy for one year for every Club.

All communications and letters relating to THE TELEGRAPHER must be addressed to the Editor, care B. & B. Telegraph Office, No. 14 Broad Street, New-York.

Newspapers, by inserting this Prospectus, and sending a marked copy to the Editor, will be entitled to an exchange.

Circulation over 1200 copies, from Italy to the Pacific Coast, from Canada to Panama.

NOTICE TO CORRESPONDENTS.

All communications to, or articles for insertion in, THE TELEGRAPHER, must be addressed to the Editor, care of B. & B. Telegraph Office, No. 14 Broad Street, New-York.

No notice will be taken of anonymous communications: the name and address of the writer must always accompany each article or communication.

Correspondents sending articles for insertion must write briefly, and on but one page of each half sheet of paper. We can not return rejected articles.

DISTRICT BY-LAWS.

The N. Y. DISTRICT have 1000 copies of DISTRICT BY-LAWS printed in pamphlet form, with blank spaces for filling in time, dates, and amounts. Price, \$3.50 per 100. These By-Laws were printed upon the assurance of several Districts of their desire to purchase.

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Persons, desiring to purchase goods in New-York City, will do well to intrust their commissions to the Editor of THE TELEGRAPHER.

We are only prepared at present to execute commissions in Telegraph Materials, Printing, Blank-Books, Stationery, and Steinway's Pianos, also Wood Engravings, and Lithography. Terms reasonable. Address the

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This machine is now, for the first time, offered to the public. It has been thoroughly tested, and found to answer its purpose most admirably.

As a protector against lightning, it has no equal, being so delicately constructed that not a click will be heard on the relay during the most violent thunder-storm.

While accomplishing this most desirable result, it in no way interferes with the working of the line. Telegraph Superintendents should at least give it a trial.

A modified form, much cheaper, will be found very useful and efficient for fire alarms, and also to those telegraphers who do not care for perfection—this latter form being far superior to any other ever offered to the public.

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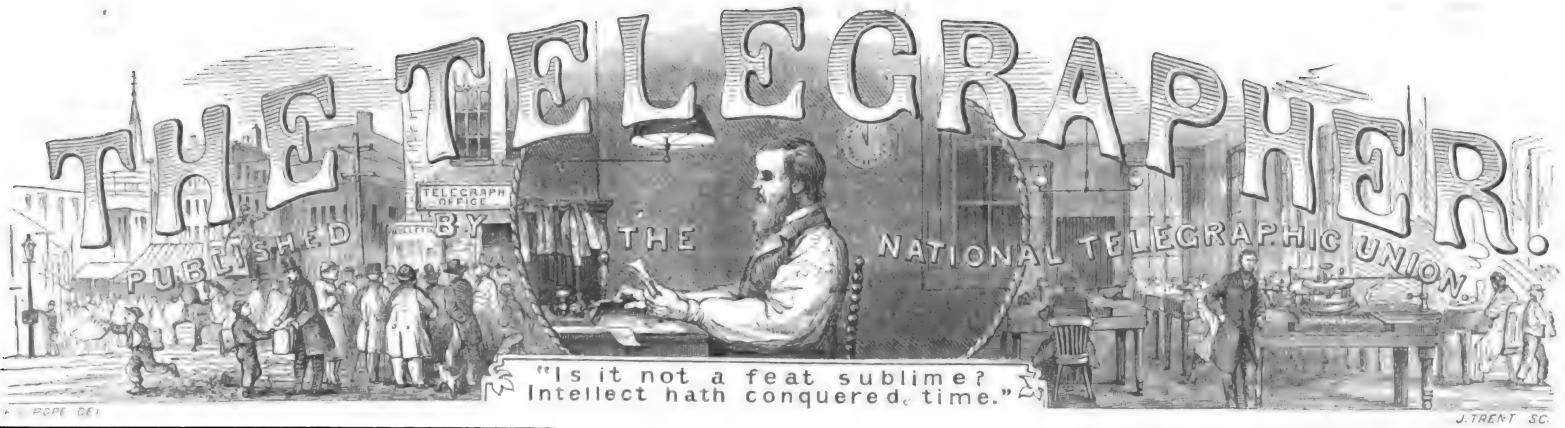
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IRON AND STEEL WIRE,

FOR ALL PURPOSES.

New-York Office and Warehouse, 42 Cliff Street.

I. WASHBURN, Pres't.
P. L. MOEN, Treas.
W. E. RICE, Sec.



Vol. I.

New-York, Monday, October 16, 1865.

No. 14.

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OF THE

NATIONAL TELEGRAPHIC UNION.

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S. P. PEABODY, CORRESPONDING SECY,	Box 1021, St. Joseph, Mo.

UP to the time of going to press we have not received one word of the proceedings of the late Convention.

THE ELECTRIC CURRENTS OF THE EARTH.

MR. MATTEUCCI, in a second memoir, has reported to the Academy at Paris the continuation of his researches, or the relations which may exist between these currents and atmospheric electricity, and also his verification of the results already obtained by the study of the currents upon lines whose extremities were plunged into the earth at different levels. Our limited space prevents us from giving details of the mode of experimenting, etc. He reports the results which he obtained by operating on telegraph lines of great length. He worked most successfully on three lines in the valley of Costa, at different levels. The electric currents obtained, in spite of much greater resistance, gave currents and fixed deviations much stronger than those observed in previous experiments on a hill near Turin. The experiments were made at very different hours, but the fixed deviation indicated in all cases an ascendant current in the metallic wire, as in the preceding experiments. In a great many cases, the needle remained at the same angle of deviation during the whole duration of an experiment, sometimes an hour; but Mr. Matteucci states that he has also remarked, when there has been no change in the aspect of the sky, a nearly periodical movement in the needle. He says that, in spite of all the inherent difficulties connected with these studies, which should impose on the philosopher very great reserve in his conclusions, he thinks that he may consider the following result as established upon a great number of conformable facts, obtained under very different circumstances: "When a metallic wire is stretched over the earth, and isolated from it, with its extremities communicating with the earth at two points, at different heights, an electric current circulates constantly in the wire, the cause of which can neither be attributed to the chemical actions of the electrode, nor to those of the terrestrial layers into which they are plunged. This current is constantly directed to the metallic wire of the highest point, and its intensity is greater in the longest lines, whose difference of level at the extremities is great. The intensity of the current does not sensibly vary with the depth of the cavities into which the electrodes are plunged, and is the same in the wire suspended at several metres from the earth as in the wire in contact with the earth.—*Telegraphic Journal*.

THE COLLINS OVERLAND TELEGRAPH.

A CORRESPONDENT of the *Berkshire (Mass.) Courier*, signing himself "Cariboo," under date of San Francisco, May 15, 1865, writes as follows:

"A third party is to be landed on the Asiatic side, the duty of which will be the location of the line between the bay of Archangel Gabriel and the mouth of the Amoor River in Siberia.

"The following order was issued to-day:

"HEADQUARTERS, C. O. T. Expedition, }
SAN FRANCISCO, May 15th, 1865. }

"SPECIAL ORDER NO. 1.

"1st. Major F. L. Pope is hereby assigned to duty in command of the British Columbian and Russian American exploring party, and all orders issued by him will be duly executed.

"2d. Dr. J. T. Rothrock will report for duty to Major Pope with the rank of captain. He will be obeyed and respected accordingly.

"3d. The party under command of Major Pope will proceed to Victoria by the steamer of the 19th of May. Written instructions will be furnished for movements beyond this point. By order of COL. CHARLES S. BULKLEY, Engineer-in-Chief, [Official.] GEO. M. WRIGHT, Adjutant."

"Major Pope's party is to consist of twenty-five men, twelve of whom are already engaged, and at the present in this city, while the balance will be enlisted at Victoria, and will be composed entirely of retired employees of the Hudson Bay Company, many of whom are familiar with a portion of the country through which we are to pass. Among those who accompany this expedition are Stephen D. Field, of Stockbridge (who proposes to get ahead of his uncle in building a *successful* telegraph to Europe) and your correspondent, who will endeavor to give you an account of our adventures at the earliest opportunity. Major Pope has been fortunate in securing the services of Mr. Robert Birnie as a guide and adviser, he being a most excellent and trustworthy man, having been in employ of the Hudson Bay Company from boyhood, and accustomed to the various phases of the country through which we propose to travel.

"It is no more than just to Colonel Bulkley, the engineer-in-chief, as well as the subordinate officers of the expedition, to say that they have been subjected to the most vexatious hindrances and delays, through the restrictions of the directors of the Company, who, while sitting in their offices at the East, see fit to dictate inexpedient plans to men in whom they have felt sufficient confidence to place in high positions, while they now tie their hands at a time when every day's delay risks the loss of a whole season at the extreme northern section of the line. Great credit is due to Colonel Bulkley for the energy he has displayed in putting the wheels in motion amid such adverse circumstances. Richard J. Bush, formerly of Great Barrington, and more recently connected with the gallant Massachusetts 27th Regiment, holds the position of Quartermaster of the engineer corps, and will accompany Colonel Bulkley to the Northern Pacific next month. As Berkshire County is so largely represented in this expedition, we trust that our friends at home will feel a slight interest in our efforts to accomplish the great work in which we have launched out, and with the aid of Divine Providence we shall endeavor to sustain the bright name of the Old Bay State, ever foremost in the advancement of the arts, sciences, and improvements of civilization.

CARIBOO."

CHEMISTRY OF IRON—NATIVE LODESTONE.

In ancient Greece, among the shepherds who tended their flocks upon the sides of Mount Ida, was an observing man by the name of Magnes. He noticed that a certain black stone adhered to the iron of his crook, and making known his discovery, the stone was called magnet, after the name of the discoverer, which was thus made immortal. The mineral has been called also the native lodestone, but it is known to modern chemistry as the magnetic oxide of iron.

We have described two oxides of iron. The atom of one is formed by the combination of one atom of iron (*ferrum*) with one atom of oxygen, FeO ; this is the protoxide of iron. The other is formed by the combination of two atoms of iron with three of oxygen, Fe_2O_3 , and is called the sesquioxide of iron. The atom of the magnetic oxide of iron is formed by a combination of one atom of the protoxide with one atom of the sesquioxide, $FeO \cdot Fe_2O_3$, or it may be written Fe_3O_4 . As the oxygen atom weighs 8 and the iron atom 28, the proportion of iron in pure magnetic oxide of iron would be 84 pounds of iron to 116 pounds of the ore.

The magnetic oxide is one of the best of the iron ores. The famous Swedish iron is made from this ore, and Iron Mountain in Missouri is formed of it. Those of our readers who are following Dr. Stevens in his exceedingly interesting history of the geology of this continent, will remember that magnetic iron ore is found only in the azoic rocks, those that existed before the creation of life upon the earth. At this ore will attract iron, while none of the other oxides of iron will, it is very easily distinguished; and it is very easy by its means to determine the age of the geological formation in which it is found. The scales which fly from wrought iron while it is being forged, are the magnetic oxide of iron.—*Scientific American*.

THE NORTH-ATLANTIC TELEGRAPH.

(CONCLUDED.)

"THE existence of these fiords is extremely advantageous to the carrying of the telegraph cable to Greenland, and there bringing it on shore. Were it not for these, some difficulties might have been met with in finding a suitable place for the landing, owing to the ice-streams on the outside coast; but in several of these fiords—Tessermiut, for example—the water is of such depth as to preclude the possibility of icebergs grounding upon the cable, and the almost perpendicular mountains forming parts of the lateral coasts of the fiords, and the deep water at their bases, offer excellent situations for leading up the cable from the middle of the fiord to the shore, without exposing it in the slightest degree to the grounding of icebergs upon it.

"In conclusion, I beg to state that, from the results of seven years' observation in Greenland, I am of opinion that neither the ice nor the configuration of the coast will offer any impediment to the successful laying and landing of the telegraph cable in Greenland."

THE ELECTRIC CIRCUITS OF THE PROPOSED NORTH-ATLANTIC TELEGRAPH.

COLONEL SHAFFNER then read the following, namely:

"As preliminary, I will briefly refer to the respective circuits proposed on the north-about route, as marked upon the large map before the Society.

"LANDING-PLACES AND LENGTHS OF CIRCUITS.

"SCOTLAND TO FÆRÖE ISLES.—One end of the cable for this section will be landed in one of the many safe bays in North-Scotland—the precise place has not yet been determined. The other end it is proposed to land in a beautiful bay near Thorshaven. This section will be some 225 miles, and the depth of the sea not exceeding 254 fathoms; bottom, mud and shells.

"FÆRÖE ISLES TO ICELAND.—One end of the cable will probably be landed at Haldervig, near the north of Stromöe Isle. Captain Young strongly recommends this bay, and that the other end be landed in Berufjord, Iceland, a very good place, with deep water and muddy bottom. The cable to this place will be about 240 miles. Depth of sea, maximum, 683 fathoms; bottom, mud and shells. It may be found more advantageous, for reasons not necessary now to be discussed, to carry the cable more westward, to or near Portland, and to which place it can be laid on a muddy and sandy bottom, in water of good depth. Both of these places, namely Berufjord and Portland, are free from any volcanic influences whatever, and ever have been, as far back as the discovery of that remarkable island in the year 868.

"ICELAND TO GREENLAND.—This section will be the longest of the series, between 600 and 700 miles. Captain Young has reported in favor of Hvalfjord, a little north of Reikiavik, in the Faxe Bay, but in order to economize as to length of cable, it is quite probable that a more westerly place will be selected, on the south side of Faxe Bay. The other end of the cable he recommends be landed in Julianshaab fiord, on the southwest coast of Greenland. He examined that beautiful bay, and found it to contain deep water, with muddy bottom; and he states that it is his decided opinion that bergs cannot reach the cable when laid in it. The reports of others concur in this opinion. There are other fiords near Cape Farewell, equally favorable. Tessermiut and Illoa fiords are considered well suited for the cables.

"Heretofore it was contemplated to land this section of the cable upon the east coast of Greenland, south of latitude 61° north, in or near Prince Christian's Sound, and then either to carry the cable out at the other end of the Sound, or to connect this section with the next by a cable around Cape Farewell; or, by a line across the land, avoiding the inland ice. For the present, the intention to land on the east coast has been abandoned, not because it has been found to be impracticable, but because it has not been proved to be practicable. It is now proposed to carry the cable from Iceland, around Cape Farewell, to one of the fiords on the west side, and from the same fiord run the cable to Labrador. Hereafter the Company may find it best to land on the east coast, and carry out the original intentions as above stated.

"GREENLAND TO LABRADOR.—The cable will start from Greenland, and land at or near Hamilton's Inlet. The soundings taken by Sir Leopold M'Clintock show 180 fathoms interior from the outer rocks on the coast, so that the cable can be laid into the inlet from the sea in water sufficiently deep to place the cable beyond the reach of icebergs. If, however, the depths be found more favorable from the sea into Byron's Bay, near and south of Cape Harrison, that place will be equally satisfactory, all questions being considered; and from thence the cable can be carried into Hamilton's Inlet, through one of the several channels connecting Byron's Bay with the Inlet. Length of section about 510 miles.

"Before the respective cables are laid, each of the places will be carefully sounded, and buoys will be placed indicating the deep trenches; and, besides, steam tenders will be in readiness to serve as pilots. Every precaution will be taken to obtain the most complete information in regard to the depths of the bays and of the seas.

"ELECTRIC CIRCUITS.—I will now explain to the Society the respective electric circuits, as practically applied to commercial telegraphy. I propose to illustrate the mode of manipulating one or more circuits singly and combined; when I say singly, I mean from one station to another, and the employment of one voltaic series: when I say combined, I mean the coupling together two or more circuits in succession, all of which are brought into action by the manipulation of any given one.

"I will call the attention of the Society to the circuits contemplated to be organized on the North Atlantic Telegraph. The first circuit connects Scotland with the Færöes by submarine cable of some 225 miles in length. The course of the voltaic current runs through the cable, starting from Scotland, passing through the apparatus at the Færöes, descending into the earth, and thence direct to the source of its origination in Scotland. The current of this circuit passes through the spools of wire at the Færöes constructed as the one which I hold in my hand, and when the wires are thus charged, the cores, or iron centers, become magnetized, and they attract down the armature, which causes the other end of the lever to form a metallic contact so as to close the succeeding circuit extending to Iceland. The course of the current on this second section extends from the Færöes to Iceland, thence through the apparatus, similar to that at the Færöes, and thence returns to the battery from whence it sprung. In like manner the circuit from Iceland to Greenland is opened and closed, and the same action takes place on the circuit from Greenland to America. It will be observed that these circuits are not of equal lengths, but the science of telegraphy has been so carefully studied by the practical manipulator, that the conductors can be adapted to the requirements of each circuit, if desired.

"The limited time allowed at this meeting prevents me from going into detail in explanation of the sciences and arts pertaining to the subject under consideration. But in order that the Society may more clearly understand that which I have already said, I have arranged the models of apparatuses placed in different parts of this room. Before me is an apparatus supposed to be at North-Scotland, that on my right at the Færöe station. I will now call the Færöe station by the opening and closing of the circuit, and it will be seen that the bell at Færöes is made to ring by the instrument at Scotland. I will next call Iceland, which is the station immediately beyond the Færöes. When I call Iceland, the Færöe station connects or couples on the circuit to Iceland; when Iceland hears the call by the ringing of his bell, he immediately responds. The next station desired is Greenland, and when that station is called, Iceland couples on the circuit to Greenland, and in like manner Greenland couples on the circuit to America, and now I communicate by the combination of the respective circuits from Scotland to America by the simple motion of my finger.

"I have reduced this illustration to the most simple form, so as to bring it within the comprehension of the most uninitiated. It has not been done for the expert telegrapher. The apparatus required at the respective stations to effect the working in the manner described, will be more complicated, and a description of them would occupy more time than is allotted to me on the present occasion. I have upon the table one of the instruments used on the continental lines for the uniting of two or more circuits, by which the end heretofore described is effected.

"The respective circuits of the North-Atlantic Telegraph will be within the bounds of known practicabilities, and we have no reason to expect other than the fullest success and the attainment of a calculated celerity. There are no air-lines on lines constructed on poles, that work in circuits more than perhaps 500 miles. There is no retardation on such lines. The telegraph from London to St. Petersburg is about 1900 miles, and upon that range there are eight relay stations. From London to Odessa the telegraph is about 3500 miles, and there are about fourteen relay stations. From London to Constantinople is about 3200 miles, and there are about twelve relay stations. It is a common occurrence to work to the stations mentioned through the aid of mechanical contrivances. It is in this manner that telegraphic manipulation overcomes long distances, and although the original electric spark will not 'leap with one bound' from continent to continent by the North-Atlantic Telegraph, the intelligence will pass between the hemispheres with a celerity commensurate with the grandeur of the enterprise and the wants of the age."

OPINIONS OF GREENLANDERS ON THE PRACTICABILITY OF LAYING THE TELEGRAPHIC CABLES UPON THE COAST OF SOUTH GREENLAND.

The following extracts are taken from letters written in Greenland by residents there, who have had much experience upon the coast. They prove that the floe-ice is seen off the coast of Julianshaab in January or February, and that sometimes during the summer months there is none off the coast, and that every year, from and after the month of August until January, "the coast is free from ice." During the months that are free from ice a steamer can enter or depart with the cable, and lay it without the slightest interruption. The floe-ice runs north, along and within sight of the coast, unless driven to sea by extraordinary gales, which circumstance is always known. When it is driven to sea it clusters together in small patches of a few hundred yards in length.

The year 1860 was a remarkable era; there was a greater quantity of ice, and it remained longer upon the coast, than ever before within the memory of man or traditional accounts. Even during this year the cables could have been safely landed in Julianshaab and other fiords. Severe seasons occasionally occur in all climates, and so it has been in England the present winter (1861). The first fourteen days were colder than has been experienced since 1839, and it has been the third occurrence of severe cold within this century.

Extracts from a Letter dated Godthaab, Greenland, September 4th, 1860, from Dr. Rink, Inspector (Governor) of South Greenland.

"I need not tell you how interesting your letter from Julianshaab, of October, last year, was to me, and how much I regretted the impossibility of meeting you.

"I have thought much on your grand enterprise, and though I doubt very much that the telegraph line can be carried across Greenland from the east side, I am convinced that it can be landed in some of the inlets (or fiords) in the vicinity of Cape Farewell, without fear of interruption from ice."

"The drift-ice has been very bad this summer, and has deprived me of an opportunity to meet you."

Extracts from a Letter dated Julianshaab, November 2d, 1860, from Mr. Miller, Governor of the Julianshaab District, a resident of Greenland since 1825.

"As a general rule the first drift-ice appears in the months of January or February, but it is seldom of such extent as to reach further north than this district. When it does so, it is in the spring months."

"The Spitzbergen ice this year (1860) has beset the coast of this district from the month of January, but at some times not so much as to prevent vessels coming into this port."

"The worst months were June and July and a part of August. The reason that Col. Shaffner's vessel was able to run into this port so successfully in the autumn of last year (October 2d, 1859), was that the ice had long before entirely left the coast; in fact, the ice had gone away in August."

"The Colonel's ship, without the slightest hindrance, navigated the coast in the month of September, and put to sea from near this harbor in October, 1859. But this year the ice has remained upon the coast longer than ever before within my memory. The coast is usually free from ice during the autumn months."

Extracts from a Letter dated Frederickshaab, October 11th, 1860, from Mr. Toede, Governor of the Frederickshaab District, a resident of Greenland since 1850.

"The ice off this coast has continued later this year than it has ever before during my residence in Greenland. During the past ten years, and before this season, the ice on the coast of this and the Julianshaab Districts, with but one exception, has never prevented the Julianshaab vessels from sailing direct to this place, and they have generally arrived by the middle of August, and in 1855 on the 5th of July. Last year the vessels proceeded direct from sea to Julianshaab, the ice having disappeared off the coast early in the summer."

"In September, 1855, I sailed along the coast of Julianshaab District beyond Cape Farewell to Itiblik, without having encountered any floe-ice whatever. In September, 1859, Col. Shaffner's ship was seen steering along the coast, and subsequently anchored at Kaksimiut, in the Julianshaab District, without any interruption from ice. The coast during the autumn months is nearly always free from ice."

Extract from a Letter dated Frederickshaab, October 11th, 1860, from the Rev. F. P. Barfoed, resident of Greenland since 1852.

"During my residence in Greenland I have never seen so much ice as during the present year. Dr. Rink, the Inspector (Governor) of South Greenland, and all other Danes and Greenlanders with whom I have consulted on the subject, are unanimous in declaring that never before within the memory of man has there been a year of so much ice as that of 1860."

"It is my opinion that both the east and the west coasts are every year, at times, free from ice, but possibly not on both coasts at the same time; and it is my decided opinion that a steamer will almost always find an opportunity to proceed unobstructed, direct from and to Julianshaab District, either from or to Labrador and Iceland, after, and many times during the month of August. In the month of September, 1859, I saw Col. Shaffner's vessel coasting southwards, and in a few days afterward we heard that he had anchored at Kaksimiut, in the Julianshaab District. There was but little ice last year, and in an especial manner was the Julianshaab District free from ice."

Statement of Mr. Motzfeldt, Superintendent at Kaksimiut, one of the oldest residents in Greenland, November, 1860.

"The year 1860 has been one of the worst ice years that we have ever had. Last year (October 2d, 1859) Col. Shaffner's ship entered Kaksimiut without difficulty. In the months of September, October, and November, generally, this coast is free from ice, and a steam-vessel can enter from the sea and depart from the coast almost any day, and not be interrupted during the autumn months. I am now over fifty years of age, and do not remember ever having seen an ice year as bad as this (1860). Even this year the coast of the Julianshaab District has been free from ice during the past and present months."

Extract from a Letter dated Julianshaab, November 3d, 1860, from J. Anderson, Captain in the Royal Greenland Commercial Service since 1848.

"During eight years I was boatswain to a merchant vessel trading to this district, and during the last twelve years commander of the district schooner 'Activ,' of twenty-two tons burthen. During those periods, I have as an old sailor (for I have been forty years at sea) made many careful observations as to the nature of the ice along this coast. I have also kept a correct log-book (which is now in the possession of the Board of Management of the Royal Danish Commercial Institution of Greenland) ever since the year 1849."

"Having gone through that log-book, and compared it with my own views, I now express the opinion that as a general rule the ice mostly lies on the coast during the months of April and May, and that, on the other hand, the months which are free from

ice are September, October and November. It may be taken as a general rule, that during the months of September and October, even in what are called 'bad ice years,' this coast is free from ice."

"My own experience enables me to state positively—and my log-book will bear me out in the statement—that steam-vessels can run straight into the settlement from the sea, with certainty, during the months before mentioned; and as a proof of the correctness of this opinion, reference may be made to this very year, which, in regard to ice, to my own knowledge, has been the worst and the longest in duration of any 'bad ice year' since my arrival here in the year 1841. The large vessel, 'Bulldog,' came straight to this place from sea; and since the date of its arrival, up to the present time, any ship, be it what it may, might have been equally able to make this port from the sea, and to leave it again without interruption from ice."

"Last year (1859) an American bark came straight into Kaksimiut, which is a little to the north of this settlement; but that is not to be wondered at, as last year was what we call here an 'ice-free year'; and if the captain of that vessel had been acquainted with the coast navigation, he might have easily come in and gone out more than twenty times, and from as many places."

Extract from a Letter dated Julianshaab, October 23d, 1860, from Mr. Dorph, retired assistant from Nennortalik; I. Holm, Superintendent at Sardlok; M. Schonheyder, Superintendent at East Proven; and S. G. Lund, Superintendent at South Proven.

"In compliance with the request made to us, we hereby declare that the present year has been what is called in Greenland a 'bad ice year.'

"The large ice remained an unusually long time at the shore. Neither of us, nor any of the old Greenlanders with whom we have conversed on the subject, remember ever having seen, in the course of our lives, the ice remaining for so long a period along the coasts."

"The ice lay so thick for so long a time that the hunters were prevented thereby from performing their usual work, even in their kayaks. In the present year the ice set in from the first month, and remained until September, when it disappeared. This coast is usually free from ice during the autumn months, and vessels can enter and depart without interruption from ice."

"One of the undersigned, Mr. Dorph, who has resided in this district during forty-one years, remembers well the year 1825, which was a remarkable 'bad ice year,' but it was not not such a 'bad' one as the year 1860."

Extract from a Letter dated Frederickshaab, October 12th, 1860, from T. Ordrorpe and C. Fotel, Captains of vessels from Denmark.

"On the 19th of June (1860), at about eight miles from land, off Cape Farewell, we found much ice; on the 22d, off Julianshaab, there was no ice. The ice was in patches, more north, and the greater part of our voyage on the coast, it was near to land. We were informed by the old people of Godthaab, that during the past thirty years there has not been any year with as much ice on the Greenland coast as the present, 1860."

Opinions of Lieut. von Zeilau, of the Royal Danish Army, and Arnijot Olafsson, Member of the Icelandic Diet (both of whom accompanied the "Fox" Telegraph Expedition in 1860), Commissioners appointed by the Royal Danish Government, on the practicability of the proposed telegraphic route.

"We concur in the opinion that it is practical to submerge or land telegraph-cables at the places selected on the Færöe Islands, and also to construct a line overland there, and that in our opinion cables, when landed, will remain undisturbed."

"We have the same opinion in regard to the landing and maintaining cables on the coast of Iceland, and also that a line can be constructed across Iceland with all reasonable prospects of permanency."

"As regards Greenland, we give it as our decided opinion, based upon our own observations and received information from the best authorities, that cables can be safely laid from Greenland during the autumn months; for instance, at the Igaliukko (Julianshaab) fiord, where cables can be submerged beyond the reach of icebergs."

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TELEGRAPHY AND PHRENOLOGY.—The *American Phrenological Journal* says: "In these days of rapid transmission of news, young men often apply to us to know what organs of the brain are most necessary to a telegraph operator. In reply to this, we say, in general, all the intellectual faculties, well developed and active, are very desirable for this as for any other intellectual pursuit; but the telegraph operator needs large perceptive organs, especially Individuality, Order and Time; and if time be well developed, so much the better, as this gives a ready discrimination of sound, aiding him to read by the 'click' of the instrument. Of course the temperament should be favorable to patient attention and studious habits."

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It was a curious freak of the late tornado in Minnesota that it stretched the telegraph wires sixty feet. When found by the repairer, the wire, though disconnected from any main battery, was so charged with electricity that it communicated a severe shock nineteen hours after the storm had passed. It is supposed that the wire was so overcharged as to become red hot, and in that condition stretched by the sheer force of the wind.

THE TELEGRAPHER.

DISTRICT DIRECTORS.

NEW-YORK.—W. Steinhoff, United States Telegraph Office.		
BOSTON.—H. W. Wheeler, American	"	"
PHILADELPHIA.—Jos. Greene, W. U.	"	"
BALTIMORE.—J. B. Yeakle, American	"	"
WASHINGTON.—T. H. Sherman, American	"	"
ST. LOUIS.—W. Stoneback, W. U.	"	"
CHICAGO.—A. H. Bliss, W. U.	"	"
LOUISVILLE.—W. DeGrove, W. U.	"	"
NASHVILLE.—_____, U. S. Mil.	"	"
DETROIT.—T. W. Priest, W. U.	"	"
MAINE.—C. I. Collamore, American	"	Bangor.
ALBANY.—A. L. Whipple, N. Y. C. R. R.	"	"
UTICA.—J. B. Sabine, W. U.	"	"
ROCHESTER.—J. H. Crane, W. U.	"	"
SACRAMENTO.—Frank Jayne,	"	"
NEW-JERSEY.—J. A. Wright, American	"	Trenton.
PITTSBURG.—M. Markle, W. U.	"	"
HARRISBURG.—J. B. Lyndall, W. U.	"	"
CINCINNATI.—B. B. Glass, W. U.	"	"
ST. JOSEPH.—W. H. Woodring,	"	"
OMAHA.—Frank Lehmer,	"	"
INDIANAPOLIS.—G. W. Babbitt, Bellefontaine Railway Telegraph Office.		

DISTRICT PROCEEDINGS.

BOSTON DISTRICT.—The regular meeting was called to order by the Director at a quarter past eight, August 23d; all the newly-elected officers, and a large number of the members present.

The Committee on the Director's Report, made a report which, after alluding to the recommendation of the Director that some measures be taken to increase the attendance upon the monthly meetings, proposed that a committee of six be appointed by the chair for that purpose. Messrs. J. W. Stover, J. C. Upham, T. A. Davin, W. C. Havens, J. W. Duxbury, and D. C. Roberts were appointed such committee.

The recommendation by the Director that a Local Treasurer be appointed was reported favorably by the Committee, but owing to the press of business, was not acted upon by the meeting.

The Committee on resolutions to be presented to the mother of the late Mr. Thomas McKey, had them very handsomely engrossed by Mr. Paul Griffith, of the American Company's office, and appropriately framed. The resolutions, with the sum of one hundred dollars, which has been received from the Treasurer to defray the funeral expenses of the deceased, are to be presented by Mr. Duxbury, Local Director of the American office, to which Mr. McKey was attached.

The Relief Committee made their monthly report, which was accepted and ordered to be placed on file.

A motion was made by Mr. Wheeler that our delegates to the Convention be instructed to propose and vote in favor of Mr. L. H. Smith receiving the sum of two hundred dollars for services the past year as editor of THE TELEGRAPHER. Adopted unanimously.

Another motion was made, that our delegates propose that the editor of THE TELEGRAPHER be authorized to cause to be printed five hundred extra copies of such issue of that paper, as he may decide, the same to be distributed by him among the Directors of the various Districts, for them to distribute among the operators on the various working circuits in their Districts who may not have seen copies of the paper, and also to furnish a copy to each of the principal papers in their vicinity; the expense of such extra copies to be paid from the profits accruing from the sale of the regular edition. Adopted.

Various other instructions were laid down for the guidance of our delegates.

A motion to instruct our delegates to vote for proposed colleges for the instruction of operators, under the auspices of the Union, was, after considerable discussion, negatived.

At eleven o'clock the meeting adjourned.

PHILADELPHIA DISTRICT.—Regular meeting September 4th. The Director being absent, the Local Director, William Dyer, officiated as chairman. After a revision of the list of delinquents for non-payment of dues, and much discussion as to the propriety of expulsion, it was proposed by Mr. Black, and agreed to by the meeting, that our delegates to the Convention offer the following as an amendment to the Constitution:

Section eleven, article seven, to read as follows: "If any member shall refuse or neglect to pay either his Union dues or District fines for the period of six months, he shall be suspended; and if not paid within three months thereafter, he shall be expelled."

Mr. Black stated he would be unable to attend the Convention, and therefore offered his resignation as delegate, and proposed the election of T. S. Flattery, delegate, and H. C. Robinson, alternate. Carried.

The meeting adjourned at quarter-past ten.

WASHINGTON DISTRICT.—A meeting of this District was held this evening, August 26th, to announce formally the result of the election for District Director, *vice Royce*, declined.

Mr. Thomas H. Sherman, of the American office, having received a majority of all votes cast, was declared elected.

The necessity for the adjournment of the Convention being announced led to an investigation of the probabilities of the delegates elect attending, and in order to insure a full delegation, Mr. James Elverson was nominated and elected as a substitute for either delegate or alternate delegate who might be unable to attend.

Two copies of THE TELEGRAPHER were ordered continued for the benefit of the District and its friends. Adjourned at quarter of nine P. M.

The regular meeting of this District was called to order at half-past eight P. M., second ultimo.

George E. Cromwell, United States Military Telegraph, Fortress Monroe, and H. S. Smithers, operator at Gordonsville, Va., were elected members.

A resolution was passed requesting the members to contribute, for the use of the District, books, papers, etc., to be placed in the District meeting-room.

The present local taxes being insufficient to meet the expenses of the District, it was proposed to increase the local dues of resident members to twenty-five cents per month, and of non-resident members to one dollar and a half per year.

The Director appointed Messrs. William H. H. Clarke and William H. Young as his counsel for the ensuing year. Adjourned at twenty minutes past ten.

HARRISBURG DISTRICT.—Regular meeting called to order by District Director, September 4th. Minutes of last meeting approved. Mr. Kiese acted as Secretary *pro tem.* District Treasurer's report accepted. District Secretary tendered his resignation, which was not accepted. District Director's resignation, tendered at last meeting because of his removal from the District, was accepted, and a vote of thanks was tendered him. Mr. J. B. Lyndall was elected to Directorship on first ballot. Adjourned.

Fourth regular monthly meeting held at 9 P. M., October 2d; six members present. Minutes of last meeting read and approved.

District Secretary having given due notice of his intended resignation at a previous meeting, the same was on vote accepted at this meeting.

Meeting then proceeded to vote for office of District Secretary, which resulted in the election of Mr. S. K. Rupley.

CINCINNATI DISTRICT.—A meeting of the operators of Cincinnati was held on the 17th September, for the purpose of organizing a District of the National Telegraphic Union. Present Messrs. B. B. Glass, C. L. Snyder, C. D. Thomas, C. A. Brooks, H. L. Smith, Geo. N. Norton, C. M. Knox, W. H. Hartman, T. A. Edison and T. G. Kennedy, of the Western Union Company's office, and Messrs. McL. D. Lewis, J. H. Warren, A. R. Warren and Geo. A. Ellsworth, of the United States Company's office. Mr. Glass appointed Chairman, and Mr. Snyder Secretary. On motion of Mr. Kennedy, it was agreed to form a District, and to that end the Constitution and By-Laws of the Union were unanimously adopted. Mr. Glass was elected District Director; Mr. Kennedy, District Secretary; Mr. Lewis, District Treasurer; and Mr. Smith, Local Director.

The time for meetings was fixed (for the present) for the Sunday previous to the fifteenth day of each month at 11 A. M.

Messrs. Knox, Ellsworth and Kennedy were appointed committee to draft District By-Laws. Mr. Smith (Local Director) was appointed a committee to solicit subscriptions for THE TELEGRAPHER.

Adjourned till September 24th. After adjournment, all those present, fourteen in number, signed the roll of membership.

ALBANY DISTRICT.—Regular meeting called to order by the Director, September 5th.

Mr. B. B. Tomlinson transferred to the New-York District. Mr. R. Clapp, resigned his membership on account of leaving the profession. After discussing matters appertaining to the welfare of the District, and instructing the delegates, meeting adjourned.

NEW-YORK DISTRICT.—Regular meeting held October 3d. Director presided. Mr. Redding acted as Secretary *pro tem.* The Director made remarks advocating another ball; also rebuked the absent members for not attending the meetings.

District Treasurer's annual report accepted. Messrs. P. W. Bentley, of Honesdale, Pa., P. C. Havens and D. W. Deanes, of this city, elected members. The Chairman (Oltman) of the delegation to the Convention being absent, no report made. The Director was requested to notify the delegation to report at the next meeting.

Mr. Beach, Chairman of the Corresponding Committee, stated that the committee was almost obsolete, owing to removals, and that since their first efforts THE TELEGRAPHER had superseded them in their labors. Committee honorably discharged.

Mr. Smith, Chairman Committee of Thanks to American Telegraph Company, made report, which was accepted.

On motion of Mr. Beach, the Director and Messrs. Lillis, Oltman, Dennis and Redding appointed a committee with full power to make all necessary arrangements for the second annual ball of this District.

On motion of Mr. Smith, Mr. Collins was appointed a committee to collect sixteen dollars from Mr. Gordon, this sum being due from sale of tickets for the first annual ball.

The Director gave notice of his intention to offer a resolution at the next meeting to strike out that part of Clause 3, Art. I., of the District By-Laws requiring notice of meetings to be given by letter. He recommended giving notice through THE TELEGRAPHER.

THE UNITED STATES TELEGRAPH COMPANY.

JAMES MCKAYE, ESQ., PRESIDENT UNITED STATES TELEGRAPH COMPANY:

YOUR letter in *The Tribune* of the 8th inst. is unnecessarily long. If your object was to convey information, which every man you solicit to take the Pacific Extension stock has a right to demand, a tithe of the space you occupy would have been sufficient; if to divert attention from facts, it were wiser to have said nothing.

You are pleased to say, "Any stockholder who chooses to apply to the proper officers can obtain every particular, whether in regard to this contract or to the other matters," etc.

I am happy to hear it. You certainly are a very "proper officer;" I am a "stockholder," and I apply to you for "particulars."

To "save postage" and relieve me from the labor of repeating them to my fellow-stockholders, will you please publish your answers to my questions in *The Tribune*?

Did or did not the Directors of the original United States Line let the job of building said line to a party composed mainly or altogether of Directors?

Did or did not this "ring" make a very "fat job" of their contract with themselves?

Did not one member of this contract "ring" retire with a very snug fortune?

And are not some or all the rest interested in the contract for building the Pacific Extension?

Before proceeding further, let me remark that your letter is as silent as your circular on the most vital points stated in my first letter. You give no estimate of the cost of the Pacific line. You do not tell how much stock in the aggregate is to be issued. You furnish no data from which I can ascertain whether the cash stock is to be one-quarter or one-tenth of the aggregate stock. But you do say that "several have already subscribed from \$50,000 to \$250,000 each;" and here I want some "particulars."

Do these "several" possess information so carefully withheld from stockholders generally?

Do they know how much stock in the aggregate is to be issued?

Have they or their "next friends" an interest in the contract for building?

Are they both Directors and Contractors? (You say two gentlemen hold these relations.)

Have they not a greater interest in getting the stock subscribed than they have in the prospective earnings of the stock?

If these "several gentlemen" are as innocent as you would have us believe—if they really have put up "\$50,000 or \$250,000" each to buy a given piece of property, worth a million at the most; and if they do not know whether that property is to cost them one million, six millions, or ten millions—if they have no guaranty and ask none on this point—could you not, on proper application, cause guardians to be put over them by the courts as men of unsound mind, incapable of managing their "several" estates?

You say that the contract for the construction of the proposed line is "highly beneficial to the stockholders," and that "if it is a good one, all stockholders are equally the gainers." Let us see!

You still refuse to tell us what—how much stock—that line is to cost under the contract.

I hear (indirectly) from an officer of the company that the Extension Line is to be stocked in at \$6,500,000.

From another source I hear that the figures are seven millions. Dare you affirm that the contract or arrangement provides for less than six millions and a-half of stock to be issued for the Pacific Extension?

I assume that you dare do no such thing.

Well, then, for the present, we will proceed on the assumption that the capital stock of the extension is to be only six and a-half millions.

The line, at a most liberal estimate, will not cost over a million—probably less than three-quarters of a million. Six millions and a-half of stock, sold at the rate fixed by your circular, would yield over four million three hundred and thirty thousand dollars cash—or an excess of about three million five hundred thousand dollars over the actual cost of the line.

This assumption would account for the otherwise inexplicable fact that your circular tells us we can have the stock at 66 $\frac{2}{3}$ per cent, without advising us whether the line is to be stocked at one million or three or six or ten millions. Yet, if I take \$1000 of the stock, it might be worth par, or less than sixteen cents to the dollar, accordingly as the line should be stocked at one million or at six and a-half millions. And on this vital point your circular gave no guaranty, furnished no information, but was significantly silent.

Your letter confirms the "suspicions" your circular engendered.

Suppose six millions and a-half of stock be subscribed for, who is to get the surplus?

"Seven per cent until notice shall be given that the scrip is ready to be delivered" would not take much of it.

Suppose a million and a-half only be taken—which would more than build the line—who would get the five or five and a-half millions of stock?

Again: You state that the Pacific Extension is a new company, having no interest in the stock or property of the United States Telegraph Company. Of course, then, it has and can have, no property nor funds except the proceeds of stock subscriptions, which you are soliciting.

Now, Mr. McKaye, in view of these facts, will you tell me where you propose to get the money to pay "seven per cent interest" on our subscriptions?

Do you not—be candid now—do you not propose to take part of the very money we are expected to pay in, and hand it back to us as "seven per cent interest?"

If yea, please state precisely what advantage we would derive from such "financiering?"

If nay, please state how you can pay the "seven per cent interest" you promise?

Briefly, as to the consolidation of the United States and Pacific Extension Companies which you admit is a part of the programme:

Our company has, say 20,000 miles of wire. You state the capital (as of August 1) to be \$3,500,000. Now, see, the Extension Line (when completed) will be about 2000 miles long. It will run through a country, California, where another company is secured exclusive rights for *way-business* by charters which have been judicially sustained by the courts—and its nominal capital is to be six and a-half millions.

Suppose these two stocks be put together at par, making some ten millions of stock in the aggregate—is it not possible that the contractors or other favored parties may own a majority of the whole ten millions, and not be out of pocket to the extent of a single dollar?

Now about that dividend of 4 per cent on U. S. Telegraph stock. You affirm and pretend to prove that it was paid from net earnings.

Let us look at your proof. You say that the "rival companies," Western Union and American, earned in six months \$1,791,000, or 7 $\frac{1}{2}$ per cent on their stock, while the United States Company earned \$178,856, or 9 $\frac{1}{2}$ per cent on its stock.

You further intimate that whereas 40 per cent of gross earnings is a fair allowance for running expenses, and you allowed 58 $\frac{1}{2}$ per cent, therefore the U. S. dividend was paid from net earnings! That is your argument.

Let us see what it is worth. You concede that the "rival companies" and the United States Company covered not widely different areas. Our company generally pays higher salaries and higher rents than the "rivals." Our lines are mainly on the highway, theirs mainly on railroads; and their expenses for keeping the wires up are relatively much less than ours.

Now mark: 40 per cent of their earnings would give an aggregate of \$716,400 for running expenses, while 40 per cent of our earnings would give but \$71,520 for running expenses, or less than one-tenth what you concede that it costs to run the "rival lines!"

Again, the sum which you say it costs to run the "rival lines" (and you state it too low), is more than four times greater than the gross receipts of our lines for the same period!

Can you pretend to any man of common sense with these, your own figures, lying before you and him, that you made a dividend from net earnings? If you did not divide net earnings did you not divide a portion of the money accruing from stock subscriptions? What other resources can our company have?

What motive can there be for dividing anything but net earnings?

Can you show that stockholders who took stock as an investment will be benefited by receiving a portion of their own subscriptions back under the name of "dividends?"

And if honest stockholders derive no advantage from such a policy, is not the inference irresistible that there is "a ring" somewhere whose interests are not identical with the interests of the rest of the company?

A UNITED STATES STOCKHOLDER.

[To the above, a reply has not yet been made by Mr. McKaye.—ED. TELEGRAPHER.]

CAR-BRAKES OPERATED BY ELECTRICITY.—Mons. Achard, civil engineer, has invented a method of operating brakes so that they can be instantly applied to all the wheels of a train, by touching a small lever, which has the effect to break an electric circuit, and thereby release the brakes, which are then forced against the wheels by springs. If the locomotive breaks from the train, or any coupling breaks, the electric wire will also break, and the detached cars will be stopped. The conductor, engineman, or any other attendant, can instantly release the brakes in case of danger; and it is suggested that passengers also may be allowed to do so—an allowance more allowable where the carriages are separate than where they are open through, like ours. This invention has been recommended to the Emperor for the prize of 50,000 francs offered for the best application of the Voltaic pile. The first trials of it were by order of the Minister of Public Works, and at the public expense; and the directors and engineers of the Eastern Railway Company aided in the practical improvements which made the invention successful. Since the preservation of life is the highest duty of railway managers, the invention of Mons. Achard should receive their serious consideration.—Abridged from *Le Moniteur*.

MAGNETIC NEEDLE-THREADER.—Magnetism has been applied to a great many useful purposes, with more or less success. The most recent invention in which this agent has been applied is a needle-threader, patented June 14, 1864, by Oliver Cox, of Washington, D. C., and since assigned to Munson, Cox & Lemon, of that city. This threader consists of a small piece of steel, having a straight groove on one side for the reception of the needle, and a taper hole opposite to where the eye of the needle comes, to conduct the thread into the eye. The steel is magnetized, so that the needle to be threaded is held in the groove by its attraction, without the aid of a spring. By this means the threader is made very simple, and affords much greater facility for threading a needle than the threaders with springs. It can be used for needles of various sizes, and does not get out of order.



L. H. SMITH, Editor, Bankers' & Brokers' Telegraph Office,
14 Broad street, New-York.

MONDAY, OCTOBER 16, 1865.

ATTACK—DEFENSE.

BOSTON is a small city in the State of Massachusetts of the United States of North America. Boston boasts a District organization of the far-famed National Telegraphic Union, which has for its Director a Mr. H. W. Wheeler, a native of the State of Maine, who has just been reelected after serving a year acceptably.

We believe, and speak our honest conviction, when we say he has been a faithful, efficient, and a hard-working officer, and merits the good opinion of the members of his District.

At the annual meeting of his District, held on the seventh of August last, Mr. Wheeler made a report, equaling a page of this paper, of which seventy-five copies were ordered printed for distribution, one of which some one in Boston was kind enough to send us.

The printing of this report is an example worthy of imitation by other districts. Print very quickly shows the worth or worthlessness of any document.

The report generally is well and gracefully written, and reflects credit upon its author. We wish every Director would make it a point to make at least an annual report of the condition of his District and the Union, and in doing this try and give the members some good, wholesome advice, and not fail to state, in honest English, wherein they fail as members of our Association.

We are glad this report is published and circulated, because it gives us a text for the foregoing remarks and compels us to a defense which otherwise would probably never have been made.

Certain assertions made by Mr. Wheeler in this report and elsewhere, cannot go unnoticed.

In this report we find the following paragraph:

"In a previous report I alluded to THE TELEGRAPHER, and urged members to come forward more liberally and subscribe for it, thus aiding in its support. I am sorry to say that this District is in this respect sadly behind other Districts. This should not be. There is not a member of this District who cannot AFFORD to subscribe toward the maintenance of a journal conducted solely in the interests of the Union; and it is a disgrace to the District that NOT ONE-HALF of its members contribute to the support of their organ. I have myself, as many of you have done, expressed dissatisfaction with some articles which have been published in its pages, and with the action of the editor in some other respects, and yet I should consider that I was not doing my duty to the Union did I fail to aid in sustaining its publication. We should all remember that THE TELEGRAPHER is not an individual speculation, but is rather the authorized exponent of the Union. If we, any of us, feel that the editor has failed to do his duty in some respects, we should not for that reason withhold our subscriptions; and we should remember that the editor's duties are very arduous, and that he has labored for the past year 'without money and without price.' I have expressed dissatisfaction with the editor for some views which he has expressed, and for his failing to publish in the last number the report of the July meeting of this District; and at other times he has curtailed the reports from this and from other Districts, which is in violation of the instructions of the Convention. Nevertheless I cannot but render him great praise for the capable manner in which he has conducted the paper, and for the beautiful style of its typographical execution. I trust that those members who are not now subscribers will come forward at once and aid in its support."

In the above Mr. Wheeler charges us with "failing to publish the proceedings of the July meeting of this District, and of curtailing the reports of this and other Districts." This, for Mr. Wheeler, is rather mild on the editor of this paper, and is not half as strong as charges made in a letter which we shall publish hereafter. Mr. Wheeler is enraged at us because we have gone on faithfully doing our work as

seemed, all things considered, best for all our readers, and regardless of the dictation of himself and other members of his district. He justly charges that "*not one-half* of his members take THE TELEGRAPHER," but we will not repeat the fling that we have often heard. Coupled with its weak support, we have received more fault-finding, more unreasonable demands, more importunities, and longer articles for insertion from this District than from all the other Districts combined.

We made great efforts to please these unreasonable people, but seem to have only succeeded in increasing their displeasure, or at least of Mr. Wheeler, who, just before the Convention, grew quite rabid and attacked us quite savagely, as will be seen hereafter.

That we are still suffering from a wrong supposition, caused by our printing verbatim one of this District's reports we believe, and now that these charges are brought against us publicly, we intend to put in our rejoinder.

We care little how much dissatisfaction Mr. Wheeler may express or feel with our editorial remarks in general, for we write as we think, and intend to continue doing so, and do not intend he shall dictate what we shall say. Where is the fun, or what is the use of being an editor, if we must write to please some one or a half-dozen readers. An editor is expected to express his own views, improved and enlarged perhaps by extended intercourse, reading, and correspondence, and not those of some one other person. We shall be independent or nothing. We certainly shall not adopt Mr. Wheeler's ideas unless they be worthy of it.

We deny, in unqualified terms, this gentleman's charge made in this report, in letters to others and ourself, that we have curtailed or left out any part of the proceedings of his or any other District to suit our own personal convenience, or for the purpose of being arbitrary, or to shield us from any unpleasant attack, or to cover from view any charges made against us; but assert that all has been faithfully printed in substance if not in detail.

We have experienced extreme difficulty in printing out the long reports sent us from Boston and do justice to other Districts and our readers. The Boston District is prolific of special meetings, each one longer than the other, and if we do not print all these and all the Regulars, just whenever Mr. Wheeler thinks we ought, then a howl is wafted to us by one of those disagreeable east winds peculiar to the "Hub."

The District proceedings are so much waste reading to a large number of our subscribers, more than half of whom have no direct interest with our Association. To make THE TELEGRAPHER acceptable to all, we have been obliged to study economy—falsely perhaps oftentimes—with our subject matter, and give our readers the largest amount of varied and interesting reading at our command; and not only this, we felt it our duty for the Union's sake to make this paper a success pecuniarily as well as otherwise. Having this end in view we early found it necessary to exclude all extraneous matter from the District proceedings, and have therefore reduced all resolutions and motions to a simple statement of their purport and object, unless in cases where their importance to the Union required their publication in full, and whenever the proceedings and resolutions of a District were small. This "curtailing," as Mr. Wheeler expresses it, has enabled us to print more proceedings in each issue than we otherwise could.

Mr. Wheeler has, in letters to ourself and others, charged that we purposely withheld certain proceedings of his District for fear of the effect derogatory to ourself they would cause in the minds of the members of other Districts, and thus forestall the action of the Convention in our behalf. Also that it was our intention to "gag" the delegates, and use them for our own advancement, and that our presence at the Convention would be unlawful and unauthorized, and a swindle upon the treasury of the Union. For these generous words we must thank the gentleman, and say we know our business quite as well as he.

One other thing we wish to mention, and that is this: the President has a certain control over the District and Union matters, and when he directs that certain portions of each be stricken out, we shall heed his wishes regardless of Mr. Wheeler or Boston. We have done this often, after announcing what our instructions were, and shall continue doing so while we occupy our present position.

We half suspect that Mr. Wheeler thinks THE TELEGRAPHER ought to be published in Boston, and he the editor.

TELEGRAPHIC MISCELLANEA.

CORRESPONDENTS will please notice the change of our address, also that of the Treasurer of the Union.

THE SUBSCRIPTION price for THE TELEGRAPHER remains the same, two dollars per year. Single copies of the semi-monthly are, however, but nine cents; two copies, seventeen cents; three copies, twenty-five cents; four copies, thirty-four cents; five copies, forty-two cents; six copies, fifty cents. The old issue remains at the former price.

THE NAME of the Secretary elect of the New-York District should be F. P. Brown, and not Thomas P. Allen, as stated in our last issue.

THE READERS of THE TELEGRAPHER will observe by reference to our advertising columns that the old and well-known firm of C. T. and J. N. Chester, of this city, are making themselves extensively known to the telegraphic world through the medium of the only telegraphic journal in America. This will be the beginning of their success in business.

TELEGRAPH COMPANIES will do well to remember that Mr. J. S. Keeling, who advertises so extensively in these columns, takes contracts for the construction of lines.

C. C. CLUTE, who we stated a short time since had obtained permission from poor Max's Empirical Government to build telegraph lines in Mexico, sold his permits for the export of gold to buy supplies, and decamped with his ill-gotten Max-dollars.

PROMOTIONS AND RESIGNATIONS.—F. H. Tubbs, late Superintendent C. B. and Q. R. R. lines, to be Superintendent of the United States Company's lines, headquarters Cleveland, Ohio.

W. H. Hall, late manager Illinois and Missouri Company's office, Chicago, to be Superintendent C. B. and Q. R. R. lines, *vice* Tubbs, resigned.

J. E. Ranney, of Peoria, to be manager Chicago office, *vice* Hall, promoted.

H. C. De Pue, late chief operator of I. and M. Company's Chicago office, has gone to Cleveland. A. H. Bliss to be chief operator, *vice* De Pue, resigned.

H. C. Malock to be chief operator, United States Company's Chicago office, *vice* York, resigned.

Arch. Wilson, Jr., late Director of the Baltimore District, has resigned the chief operatorship of the American Company's Baltimore office, and taken the management of the United States Company's office in that city. "Arch" has our congratulations upon his succession.

L. A. Gallup, late operator in the American Company's "T. W." (Willard's Hotel) office, Washington, has been appointed manager of the Bankers' & Brokers' Company's Washington office.

ON the 23d ultimo, at four o'clock A. M., Mr. H. P. Jones, of the W. U. Company's office in this city, worked direct with San Francisco, California, a feat easily, but not often performed on any stage.

A. W. S., PECATONICA, Ill.—Some years ago Colonel Park (who left a leg in the Wilderness when General Hooker was there), of the firm of Park & Ells, of Troy, N. Y., patented a machine for printing the Morse Alphabet, which worked rapidly and well. We do not remember why the companies never adopted it.

GROUND WIRE, CINCINNATI.—It has been asserted that in the Fall of 1860, Mr. James Fisher, of Nashville, transmitted fifty-five words in one minute with a Morse Instrument. We cannot give the highest number ever sent in an hour. Eighteen hundred is probably the highest, but have heard two thousand have been sent, but very much doubt it.

DEEP SEA CABLE.—We have seen a very sensible-looking deep sea cable, now on exhibition at the American Institute Fair in this city, manufactured by the Bishop Gutta-Percha Company, and give for the benefit of our readers the following specifications for one mile:

Conductor, one No. 9 annealed steel wire,	330 lbs.
Fifteen No. 19 copper wires, spirally laid around the steel wire,	475 lbs.
Insulation, three coatings pure gutta-percha, 9-16 inch diameter outside,	457 lbs.
Outside protection.—First coating of Manilla yarn, short spiral lay,	360 lbs.
Second coating of Manilla yarn, long spiral lay, reversed way,	540 lbs.

One mile weighs 2,162 lbs.

JOHN E. SELDEN, late manager of the People's Telegraph Office, Providence, has emigrated to New-Orleans.

UNION, NASHVILLE, please read our standing NOTICE TO CORRESPONDENTS.

FROM DIXIE.—A correspondent in Raleigh, N. C., writes as follows: "Telegraphers occasionally give vent to their 'phelinks' in the way of a 'goak.' The latest on our circuit was perpetrated by an operator at Columbia, S. C., who asked Raleigh if he counted 'U. S.' two words? Upon receiving an affirmative answer, he replied: 'I thought so, as we've been trying for the last four years to make two of it.'"

QUERY.—What is the matter with the Nashville District? Is it like the Rebellion, "played out?" The Treasurer has heard nothing from it in over nine months.

MR. J. E. ZEUBLIN, the delegate to Chicago from the Indianapolis District, made a report at a special meeting of that District, held on the 18th ultimo, which was published in *The Journal* of that city.

FENIANISM.—The "neutral" Government of England has ordered guards to be placed around the telegraph offices in the south of Ireland, to prevent the transmission of any dispatches relating to Fenianism.

A PRIVATE AFFAIR.—Messrs. Steinway & Son, the celebrated piano manufacturers, have a private telegraph line from their salesroom in Fourteenth street to their large manufactory in Fifty-second street, this city.

THE OFFICES of the American Company at Profile, Crawford Glen, and Mount Washington closed for the season on September 20.

Telegraphic communication with San Antonio, Texas, has been opened.

D. H. Craig, Agent, etc.:

WASHINGTON, Sept. 18, 1865.

SIR: I have this day assented to the transmission over the military telegraph lines, by agents of the Associated Press, of daily reports, not to exceed one hundred words, to and from Augusta and Mobile, agents being held responsible for the character and tone of such reports.

THOMAS T. ECKER,

Acting Assistant Secretary of War.

Since the issuing of the above order the whole South has been thrown open to the Associated Press.

DURING a tempest at Hartford, Conn., on Wednesday last, the lightning split the yoke off the necks of a pair of oxen without injuring either of the cattle. A man standing near by was knocked down by the shock.

SUBMARINE CABLES.—There are 95 submarine cables in the United States and British North America, which measure 68 miles, and their insulated wires 133 miles. The overland telegraph line between New-York and the west coast of Ireland, through British Columbia, Northern Asia, and Russia, will be 20,479 miles long, 12,740 miles of which are completed. This line will cross from America to Asia at the southern point of Norton Sound, on the American side to St. Lawrence Island, and from thence to Cape Thadeus on the Asiatic continent. Two submarine cables will be required for this one 135 miles long, and the other 250 miles long. Cape Thadeus is 1700 miles from the mouth of the Amoor River.

PATENT CLAIMS.—49,824.—GALVANIC BATTERY.—John Blackie (a signor to himself). William C. Dodge and William S. King, Washington, D. C.:

I claim, First, the cup, B, suspended by the insulated rods, g, and plate or ring, h, as herein shown and described.

Second, I claim the perforated plate, a and a', provided with the stud, c, and nut, d, when constructed as and for the purpose herein set forth.

Third, I claim the combination of the cup, B, provided with mercury, the zinc plates, C, and the silver plate, D, all submerged and arranged to operate substantially as and for the purpose set forth.

49,842.—ELECTRO-MAGNETIC REGULATOR.—Francois Ferdinand Auguste Arachard, Paris, France:

I claim an electro-magnetic apparatus, composed of a sectional ratchet wheel, A, working beam, D, double ratchet, E, electro-magnets, F, and armature, O, constructed and operating substantially as and for the purpose herein shown and described.

[This invention relates to an electro-magnetic apparatus which is applicable for the purpose of operating boiler-feeds or of regulating the pressure of steam or gases in closed vessels, and which also may be used for the purpose of operating car-brakes, and for various other purposes.]

49,857.—SOUNDER MAGNET.—J. Clark and Henry Splittorf, New-York City:

We claim the rod, C, or its equivalent, in combination with the anvil, D, arranged in the manner and for the purposes as hereinbefore specified.

49,875.—TELEGRAPHIC REPEATER.—William H. Hamilton, Albany, N. Y.:

I claim the batteries, P R P' R', applied in combination with sounders, A A', receiving magnets, L L', registering levers, D D', and main wires, A A', substantially as and for the purpose set forth.

MARRIED.

IN Troy, N. Y., at the residence of the bride's father, on the 2d inst., Mr. Herman L. Waterbury, of the United States Company's Albany office, to Miss Louie M., daughter of the Rev. E. Stover, of Troy. No cards.

In Boston, September 7th, Mr. Harry P. Ball, U. S. M. Telegraph, to Miss Kate Snow, of Boston.

DIED.

AT Pittsburgh, N. Y., on the 2d inst., of consumption, Mr. James B. Gough, formerly operator at Keeseeville, N. Y., aged 22 years.

The firemen turned out in a body, and paid a proper respect to one of their deceased members when he was conveyed to his last resting-place.

At Magnolia, Ark., April, 1865, of consumption, Byron B. Hoyt, of Ithaca, N. Y., aged 34 years, Field operator to Gen. Maxwell.

Mr. H. engaged in telegraphy 10 years since, and will long be remembered as the popular operator at the Burnet House, Cincinnati, whence, in 1857, he went as operator to Columbus, Miss.; thence, in 1859, to McKinney, Texas, where he engaged in trade. At the breaking out of the rebellion he attempted to dispose of his business, and return North, but was impressed into the rebel service, in which, as a palliation of the hard-hips of war, he accepted the position of telegraphist to the rebel General Maxwell; but in it he contracted the disease which resulted in his death. Mr. H. enjoyed the highest esteem of the telegraphic fraternity, the utmost public confidence, and had no heart in the Confederate cause.

QUOTATIONS OF TELEGRAPH STOCK.

CORRECTED BY JOHN HORNER, CASHIER, AMERICAN TELEGRAPH OFFICE, NEW-YORK.

Western Union, \$100 shares 73	Montreal, \$100 shares, 115 gold
American, " 125	Nova Scotia, 20 "
Russian Extension, " 30	Vt. and Boston, 50 "
Ill. and Miss., \$50 par	Troy & Can. Junc., 50 "
East India, " " Maine, 50 "	25
United States, \$100 by the Company, 17 50	par
Bankers' & Brokers', \$25 shares, par	par
Insulated Lines Co., \$50 "	par

THE COLLINS OVERLAND TELEGRAPH EXPEDITION.

[CORRESPONDENCE OF THE TELEGRAPHER.]

FORT ST. JAMES, Lake Nacosla, B. C., August 1st, 1865.

My last letter was dated from New-Westminster, if I remember rightly, and you will see by referring to the map that we have made considerable progress since that time, this point being by the proposed route of the line nearly seven hundred miles northward of New-Westminster.

As your readers are aware, our party are engaged in exploring that portion of the proposed route between the upper waters of the Frazer and the Youkan, which is supposed to flow into the Behrings Sea about four hundred miles to the southward of the Straits. The party is in charge of Major F. L. Pope, assistant engineer, formerly of New-York. We left Yale, B. C., June 3d, 1865, with twenty-five men and a train of forty mules. Passing the entire distance, two hundred and eighty-seven miles, over a good wagon road, we reached Fort Alexandria on the 22d of June. Some little time being spent here in procuring supplies, the party proceeded, reaching Quesnelle Mouth on the 3d of July. This is a small place, and derives its importance from the fact of its being the head of steamboat navigation on the Frazer, and the outlet of the rich mining country lying to the eastward, known as Cariboo. It is the terminus of the wagon road from Yale, and likewise the most northern town upon the American Continent, the "jumping-off place," as it were, of civilization. It was probably owing to this fact that our boys facetiously named our camp across the river "Last Chance;" for once past there, good-by to letters, newspapers, and other luxuries of a civilized life. At "Last Chance" camp the "Fourth" was celebrated with appropriate exercises. The "Starry Banner" floated triumphant over the encampment. Salutes were fired at sunrise and sunset; an extra dinner was got up, with speeches, toasts and songs, until John Chinaman, who was washing gold at a bar on the river just below, must have thought the "Melican-man" had taken leave of his senses.

Quesnelle Mouth, as it is called, is a town consisting of a single street of log buildings, standing on the flats at the junction of the Quesnelle River with the Frazer, and fronting on the latter. The principal business done here by the inhabitants consists of asking each other to "take something," and of playing "three card monte" and other moral and instructive games. They are "laying on their oars" at present, waiting for the "fall trade," when the miners go down the country from Cariboo to winter below, with their pockets heavy with "dust," when a rich harvest will doubtless be reaped by these worthy "artists." There are many very good people in Quesnelle Mouth, too, if the kindness with which the members of our exploring party have been treated can be taken as an indication. The telegraph will be fully completed to this point about the first of September. It is probable that Quesnelle Mouth, being at the head of the navigation, will be made a supply depot for the upper country while the work is progressing.

From "Last Chance" camp we proceeded across the country towards Frazer's Lake. Here the real work of the exploration may be said to have commenced, the country already passed over being well known, and as I before mentioned, a wagon road having been opened through it. Under the guidance of an Indian named Kel-sun, we set out on the fifth of July. The method of procedure adopted was as follows: Kel-sun went ahead, clipping the trees with his tomahawk. Then followed a party of axemen, cutting out a "trail" through the standing and fallen timber, and building bridges over swamps and streams, and lastly the mule train with the provisions and blankets. In this way we averaged from ten to fifteen miles per day. When fifty miles from Quesnelle Mouth, we had the misfortune to lose one of our men—James L. Butler, of San Francisco, who suddenly disappeared and could not be found, although a search was immediately instituted, and kept up vigorously for several days. We have since heard that he strayed from the trail while chasing a deer, and climbing a tree to ascertain the direction of the camp, a limb broke, precipitating him to the ground a distance of thirty feet, and injuring him so severely that he was unable to move for three days. In this disabled condition he finally managed to return the entire distance to Quesnelle, steering his course by the sun, and subsisting on berries. He reached Quesnelle after twelve days of most intense suffering and exposure, being reduced to a skeleton, and being hardly able to move. Had he not been a man of unusual strength of constitution, he must have perished in the wilderness. I understand he was kindly cared for by the inhabitants of Quesnelle, and will rejoin our party again ere long.

Our party reached Frazer's Lake, or Naht-la, July 29th, where we rested one day. The country between Naht-la and Quesnelle, a distance of two hundred and fifty miles, is extremely favorable for the construction of the line, being mostly level and lightly wooded, but with sufficient timber for telegraphic purposes within a short distance of the trail. There are many fine lakes along the route, bordered with beautiful grassy meadows, affording a fine pasture for animals.

The most remarkable circumstance I have noticed in this country is the almost entire absence of animal life. With the exception of a very few deer and bears, some rabbits, and a considerable number of partridges, there is absolutely no game throughout the country. No one coming from the United States, where game is quite plenty, even in the most populous districts, can fail to observe it at once. One of the men informed me that, with the exception of a single squirrel, he saw neither animals nor birds during the entire trip. Farther north, I am informed by the Indians, the matter is, if possible,

still worse, so that in fact the country is totally uninhabitable by them. This will render it necessary to import nearly all the provisions for the working parties, but with this exception the country seems as favorable as could be desired for telegraphic purposes.

The natives along the line are extremely friendly, and have rendered us much valuable assistance in return for presents of tobacco, powder and shot, and red cloth, as well as other "ictas" too numerous to mention. While at Naht-la, Major Pope called a grand council of the tribe, at which several of the leading Indians were present, for the purpose of explaining to them, as well as might be, the object of our coming through their country, and also the nature of the electric telegraph. The Indians having assembled in considerable numbers, a wire was stretched upon small poles, a distance of several hundred yards across the prairie, and a portable battery attached to it, with a pocket instrument at either end. Major Pope then arranged a revolver at the farther end of the line in such a manner that it could be fired from the opposite end by closing the electric circuit. Everything being in readiness, Major Pope requested the chief to place his finger upon the key, which was followed by an instantaneous report of the pistol at the extremity of the wire. This performance excited the utmost wonder and admiration among the savages, and was repeated several times amid great applause. By this time a number of the natives had collected at the other end of the wire, and the chief was desired to send a message to one of them. He did so, and his dispatch was precisely what any one acquainted with the Indian character could have foretold—he wanted a piece of tobacco! Imagine his astonishment at beholding his "tilicum" coming down from the other end of the line, bearing something aloft in his hand, which upon his arrival proved to be the coveted piece of tobacco! The exhibition was continued for some time, and "took" immensely.

Afterwards Major Pope explained to some of the more intelligent of the savages, that a large wire was to be put up through the whole country, and explained to them how, by its means, they could be informed of the coming of the salmon in the Frazer in time to make their nets and weirs before their arrival at the fishing grounds, and its usefulness in many other ways. A quantity of tobacco and other presents were then distributed among them, and they departed in great good humor, after having assured Major Pope, that so far from offering any objection to the construction of the line, they would assist us by every means at their command.

From Naht-la the party proceeded over the mountain to Fort St. James—where we now are. We shall remain here a short time until information can be collected as to the best route for our further progress.

Fort St. James is beautifully situated at the eastern extremity of Lake Nacosla, or Stuart's Lake. The view from our camp at sunset across this extensive sheet of water is one of unrivaled magnificence. On one side the blue hills slope away to the horizon; on the other a lofty peak of naked granite rising directly from the lake, pierces the clouds with its sharp summit. Not often have I met with more beautiful scenery than can be found in this part of the world.

The maps of this region are exceedingly incorrect, even in the most important particulars, and we have ceased to place any reliance upon them, as an aid to the marking out of our proposed route. I may say, in conclusion, that even in this remote corner of the world, I was greeted by the unexpected apparition of THE TELEGRAPHER of May 29th, which by great good fortune has overtaken me here. I can hardly tell you how welcome its familiar face was to me in this far-off country. I find it enlarged and improved in its appearance, and wish it the success it so eminently deserves.

ELECTRON.

A TRAP TO CATCH BURGLARS.—A London paper recently published a description of a curious invention designed to catch safe-burglars. The depredator no sooner commences, in perfect ignorance of the secret arrangements, to force open the door, drill the lock, or move the safe, than by so doing he sends a telegraphic message to the nearest police-office, exhibiting the number of the safe he is attacking, and this number, registered in the police-books, has opposite to it the address of the house in which the robbery is being effected. The apparatus is the invention of Mr. Barb, and is a very simple affair. An instrument termed the "communicator" is fitted inside the safe; it consists of a small bolt, which is forced back upon a coil-spring when the door is closed, and which, in opening or moving the door, is instantly set in motion. In connection with this bolt wires are led through the bottom or the back of the safe and concealed in the wall, or inclosed within gas or water pipes, and, communicating with the street-telegraph wires, are connected with the "alarm" and indicator at the police-station. The effect of tampering with the door or other part of the safe is to sound the alarm-bell at the police-station, and to exhibit on the face of the instrument the number of the safe. Arrangements are, of course, made to obviate sending of alarms on ordinary and legitimate occasions of using the safe, by simply putting the apparatus out of gear at the pleasure of the owner. The simple operation of turning a small key is all that is required to render the wires available, after which the owner may leave his premises, perfectly confident that electricity will keep a tireless watch over the property left in its custody. Mr. Barb has patented his invention, but it cannot be called *barb-arous* to burglars, so far as their immediate corporeal punishment is concerned.

ANOTHER DISTRICT.—We understand that a District of the N. T. U. is to be organized in New-Orleans.

THE OLD TELEGRAPHHS.

AMONG the still primitive people of Montenegro a plan of transmitting information prevails which may be considered the rudest system of telegraphy still existing. When a shepherd in the mountains finds himself in want of society, he sends out at random a peculiar kind of yell with a view of attracting the attention of any one similarly situated who may chance to be within hearing upon some other mountain side, and may also feel a desire for conversation. It is well known at what a great distance shrill sounds may be distinctly heard in the mountainous regions. The unseen friend, whose ears have caught the sound, responds in the same way, and then begins a dialogue about their flocks and herds, or any other country gossip; and should there chance to be news of public interest, such as of any important person or foreigner passing that way, the receiver of the intelligence shouts it out in the open air for the benefit of the mountain nearest to him, and so it passes from one to another through a considerable part of the country. "This practice of calling from hill to hill," says a recent traveler, "also answers the purpose of an advertisement in a newspaper, and that with wonderful celerity. At any given time one-half of this badly-housed population may mostly be found in the open air, and their ears are astonishingly quick at catching the sounds. Any one who yells out his requirements may generally calculate on some one who has nothing else to do repeating them for him to the next living telegraph. An acquaintance told me he was once in want of a mule that was at the time grazing in the mountains more than ten miles off. He accordingly began the hue-and-cry: 'Ho! ho! you people there in the village of Brelizzu! High up in the mountains of Glenbotich, by the great beech-tree with the withered boughs, the little lad Yonko is keeping my white-footed mule. Let him know that he is to come with it down to the road as fast as he can.' Thus the owner of the mule yelled at random into the air, and immediately sonic living echo took up his words, repeating them exactly; and so the message went till it reached the boy, and the owner of the mule found it waiting for him at the appointed place."

Beacon-fires were the ancient mode of telegraphy adopted in Great Britain, and in an act of the Scottish Parliament of 1455, it is directed that "one bale or fagot shall be the warning of the approach of the English in any manner, two bales that they are *coming indeed*, and four bales blazing beside each other, that the enemy are in great force." The famous Bishop Wilkins, who pretended to discover the art of flying, describes certain alphabetic systems of transmitting information which depended merely upon the number and alternate display or concealment of lights. The Marquis of Worcester, in 1663, described a system by which, as he said, a man at a window, as far as the eye could discover black and white, could hold discourse with his correspondent; and the ingenious Dr. Hook, in 1684, explained to a meeting of the Royal Society a scheme for communicating one's mind at distances of thirty, forty, a hundred, or a hundred and twenty miles, "in as short a time almost as a man can write what he would have sent." His plan required the use of the telescope, and was of course dependent on weather and various accidents; but this was the germ of the old semaphore which was actually used by the English Government, and was at work in that country as late as 1852 between Liverpool and Holyhead. About twenty years after Hook's scheme was unfolded, an inventor, named Amontous, brought forward a similar plan in France. Persons were placed by him in several stations at a certain distance from one another, and by the help of a telescope a man in one station was enabled to see a signal in the next before him. He was then required immediately to make the same signal, so that it might be seen by persons in the station after him. The signals used were either large letters of the alphabet or figures of various shapes to represent them. Amontous publicly demonstrated the practicability of his plan; but no system of signals was applied to any useful purpose till the period of the French Revolution. The telegraph then brought into use, in either 1793 or 1794, was the invention of M. Chappé, and, though similar in principle to the machine invented by Hook, it was greatly superior. The roof of the Louvre was his telegraphic terminus, and Chappé, having received from the Revolutionary Government a message to be forwarded to the army at Lille, he gave an understood signal to the heights of Montmartre, which was the second station to prepare. At each station there was a watch-tower where telescopes were fixed, and the person on watch gave the signal of preparation throughout the line. The watcher at Montmartre then received, letter by letter, the sentence from the Louvre, which he repeated by his own machinery, and this was again repeated from the next height with as much rapidity as possible, until the message arrived at Lille. The upright post which was erected on the Louvre, had at the top two transverse arms, movable in any direction by a single piece of mechanism. Chappé invented a number of positions for these arms, which stood as signs for the letters of the alphabet, and even these were reduced as much as possible. The signs, too, were arbitrary, so that they could be changed every week, all that was necessary being that the persons at each terminus should have the key. Two working models of this instrument were made at Frankfort, and sent by Mr. W. Playfair to the Duke of York, and thus the plan and the alphabet of the instrument came to England. Chappé was not more fortunate than other inventors in escaping opposition and discouragement. The people were prejudiced against the new machinery. His first instrument and station was destroyed by the populace; his second was burned to the ground, the unfortunate inventor narrowly escaping from the mob with his life; but the telegraph was subsequently taken up by the French Government, and became extensively used on the Continent.

This kind of telegraph, known as the aerial, was first established in England seventy years ago, a line of stations being formed from the Admiralty at Whitehall to the sea-

coast, and information was thus conveyed from London to Dover in ten minutes. The expense of working and mounting the line from London to Portsmouth was three thousand three hundred pounds per annum. Though of great service to the Government, this old cumbrous system was of course only available in clear weather. Vexatious interruptions continually took place, and droll accidents occasionally resulted from the sudden cessation of communication, from a fog, or similar cause, during the transmission of a message. When the British army were fighting under Wellington in Spain, news was anxiously expected from that great commander through the Admiralty signals. The public were in a feverish excitement, when one day the disastrous message was received: "Wellington defeated." The funds were violently agitated, the people and the Government were bewildered, and terrible rumors of enormous slaughter and great loss of guns, colors, and ammunition were heard on all sides. It turned out, however, that, just as the word "defeated" had been deciphered at some part of the line, a sudden mist had come on and cut off the remainder of the message. When this inopportune visitor had passed away, the public mind was instantly relieved with the news that the message was not "Wellington defeated," but "Wellington defeated the French."—*American Artisan*.

• • •

MR. RICHARDSON, *The Tribune's* correspondent, who accompanied Speaker Colfax in his recent trip across the Rocky Mountains, in a late letter says:

"At Carson we met Colonel F. A. Bee, of Placerville, builder of the Overland Telegraph, who accompanied us from Virginia City. The Carson paper, in a little local quarrel, had just denounced him as 'a sort of outside telegraph and railroad runner.' During the public speaking after Mr. Colfax's very warm reception, with banners, processions and an artillery salute, the Colonel was called out. He said the charge was true and the phrase fitted him exactly. He was a runner and an 'outside' one. He had run a telegraph wire outside of civilization across the American continent, and now he was working to run a railroad across. It was 'the retort courteous,' in its happiest vein."

SATURDAY NIGHT.—Mr. James Elverson, formerly manager of the American Company's "T. W." (Willard's Hotel) office in Washington, is the business manager and one of the publishers of a paper recently started in Philadelphia, bearing the above singular title. May the Saturday night of his week of life keep distant many a year, and may all the greenbacks in his pocket turn to gold at high rates.

A TELEGRAPH BLUNDER.—The telegraph lately informed us that the Empress of the French, on her way from Switzerland to Fontainebleau, accepted a dinner offered her by the wife of the sub-prefect of Pontarlier. Empresses do not habitually seat themselves at the hospitable board of sub-prefectresses, and people were rather surprised; but still such condescension was not impossible, and so the incident passed unnoticed. It now proves to have been the telegraph at its old tricks. The Empress was offered, and graciously accepted, a *bouquet*. This the wires altered into *banquet*, and the pen into dinner.

FIRE TELEGRAPH ALARM.—At a recent meeting of the Metropolitan Fire Department Commissioners of this city, the following was decided upon:

In place of the present system of fire alarm with bells, connection will be made by telegraph with every fire company in the city.

The following resolution, which was adopted lately, is one of the arrangements desired to complete that result:

Resolved, That the application be made to the Commissioners of the Metropolitan Police for permission to introduce into such of the Police Station-Houses as may be requisite and necessary, instruments and wires for the purpose of perfecting the system of fire-alarm telegraph adopted for the use of this Department.

SWINDLING—A NEW DEVICE.—Some swindler is imposing a new swindling dodge. An envelope is used, purporting to be and having printed upon it in large type "Money Package," "American Express Company," and properly addressed and indorsed as coming from the Navy-Yard at Washington. The wife of an officer of the navy was induced to pay seven dollars to the bearer of such a package recently. She was allowed to open it, and read what appeared to be two telegraph messages of the American Telegraph Company, directing the payment of prize-money to her husband. Both the envelope and telegraph blank had been obtained by theft or other improper manner. The public should be on their guard against the scoundrels.

IN A VACUUM, all electrified bodies speedily lose their excitement, while in a dry, dense air, they retain it longest. Nevertheless, slight electrical excitement can be produced in a vacuum by friction.

IT IS FOUND that women make the very best clerks for the electric telegraph. The only difficulty is to prevent each young lady at either end of the line from having the last word.

BUOYANT INSCRIPTION FOR THE ATLANTIC CABLE.—"To be left till called for."—*Punch*.

THE *Kansas Chief*, published at White Cloud, Kansas, is owned and edited by Mr. Solomon Miller, who is, we are informed, an operator, and a right good fellow.

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PHOTOGRAPHS OF PROFESSOR MORSE.

A FEW copies of a large-size photograph—8×10 inches—of Professor Morse, giving name and birthplace, can be obtained by addressing the Editor of THE TELEGRAPHER, care of Bankers' and Brokers' Telegraph, No. 14 Broad street. Price, one dollar each.

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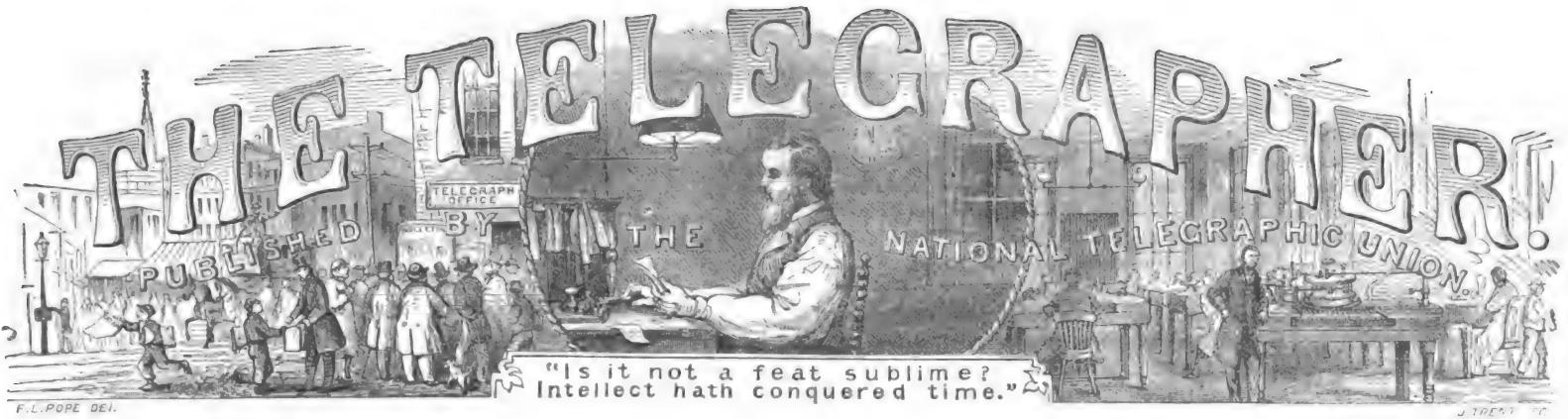
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Vol. I.

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No. 15.

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THE TELEGRAPHIC REPEATER.

TOYE'S CANADIAN REPEATER.

THIS Repeater is quite a simple affair, consisting of two Chubbuck "sounders," two relays, and two local batteries. Its simplicity and reliability has caused its introduction in the British Provinces in place of Hicks'; the complication of which, with the care necessary to keep the local batteries in good working order, is alleged as the great objection.

At either end of the "sounders" are attached standards, which support horizontal U shaped springs which overlap the ends of the sounding lever, and rest in their normal state upon the point of screws attached to the original standards at either end of the "sounder," thus forming, when connected with the wires, a connection between the original standards and those which support the springs. These are all the appliances used, and cannot certainly be called complicated. We will endeavor, without the aid of a diagram, to describe this little machine. The line wires, after passing through the relays, connect with the springs at the front or magnet end of the "sounders," and thence through the screws and original standards to the main battery and ground. The springs and standards at the opposite ends of the "sounders" are connected with the local batteries, which also connect with the relays in the usual manner. The reader will, for the sake of illustration, suppose both main circuits are closed, as also are the local circuits through the relay armature lever. When the eastern main circuit is opened the local circuit opens, relieving the armature of the sounding lever, which being pulled by the opposing spiral spring, lifts the U shaped spring, which closes the western wire, thus breaking the western main circuit, and at the same time dropping the U shaped spring at the other end of the sounder, which closes the second local circuit of the western "sounder," thus holding its sounding lever in its position to prevent the breaking of the eastern circuit by the opening of the western relay local. When the eastern main circuit closes, the sounding lever of the eastern "sounder" drops down upon the magnet and standard, which allows the U shaped spring to close the western main circuit by dropping upon the screw attached to the standard, and at the same time opens the second local circuit of the western relay, thus enabling the western operator to break or write to his correspondent. It will be observed that the U shaped springs at the front or magnet end of the "sounders" break and close the circuit of the opposing main wires, thus acting in the capacity of a key, but which are worked by the local circuits, which are opened and closed by the platina points of the relay armature levers.

We trust the simplicity of this invention will enable the reader to understand its workings, as it is always difficult to describe a machine lucidly without the aid of a diagram.

A small switch may be attached to the connections, by which means the repeaters may be made to work separately, as simple "sounders," or together as repeaters. We are not informed whether a patent covers this invention in the United States.

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BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

At the recent sitting of the above Association, held in Birmingham, England, during the early part of September, papers on the following subjects, in connection with our profession, were read and discussed:

Mr. Stewart, and J. P. Capello, presented a communication "On the magnetic storm of the beginning of August last, as recorded by the instruments at Kew and Lisbon," where the effect on the magnet was almost the same. One peculiarity was that many of the spots of the sun altered their size and character. Mr. Glashier remarked that, at Valentia, it once took one hundred cells to counteract the spontaneous electricity which affected the wires. In working a cable of the length of the Atlantic cable, it was a question how much they would be able to use it when these magnetic storms occurred.

General Sabine read a paper "On a New Method introduced by Messrs. Siemens of measuring electrical resistance," the object being to determine the position of faults in submarine or other cables, with certainty and rapidity.

Mr. Gassiot read a paper "On the change of form and color which the stratified discharge assumes when a varied resistance is introduced in the circuit of an extended series of the Voltaic Battery." Mr. Gassiot operates with a battery composed of four thousand insulated glass cells, and instead of sulphate of copper, as used by Professor Daniel, he puts about a tea-spoonfull of sulphate of mercury into each cell—the elements carbon and amalgamated zinc are then introduced into the cells, which are subsequently filled with rain water. When one of the wires of the battery is inserted in the water, and the other wire touches the moistened surface of the glass, but is not in actual contact with the water, a luminous discharge is produced, entirely filling a tube which is prepared to receive it, without any appearance of stratification. On depressing the wire, discs of red light are rapidly produced from the positive pole, and on further depression, nineteen only of these discs remain in the tube, and these are much increased in brilliancy and distinctness.

Captain Selwyn read a paper "On some new arrangements of the poles in magnets," in which he described the construction of permanent magnets, with double, variable, or consecutive poles, by softening the bar in several places. Capt. S. had upon the platform a magnet which he had constructed, that pointed east and west, instead of north and south, which was examined with much curiosity.

Mr. Owen Rowland read a paper "On parkeine (the basis of which is gun-cotton) as an insulating material for telegraphic purposes," considering it far superior to India-rubber and gutta-percha, or to any combination of materials hitherto used, a cable of it being capable of supporting one mile in length of its own substance, whilst sound joints can be made with the greatest facility.

Mr. W. Fairbairn read a paper "On some of the causes of the failure of deep-sea cables, and experimental researches on the permanency of the insulators." The author referred to the recent disaster and loss of the greater portion of the Atlantic cable, as suggestive of improvements, and the removal of impediments. The failure of insulation, submergence, etc., is not an uncommon occurrence. On the contrary, it has been estimated, that out of fourteen thousand miles of cable that have been so laid, nearly three-fourths of that length have been failures, and that at the present time, not more than from four thousand to five thousand miles are in successful operation. Mr. F. then referred to the manufacture of the cable, and stated that, notwithstanding the precaution exercised, small pieces of wire, on three different occasions, were found sticking in the cable, in contact with the conducting wires, and destructive of the insulation. These very trifling circumstances were the whole and sole cause of the loss of the cable.

Mr. Siemens read a paper "On the sheathing of deep-sea cables," calling attention to the forces which act upon a cable while descending to the bottom, and to certain conditions which have to be fulfilled, in order to insure its durability when laid. The paper proceeded to show, that a sheathing composed of two layers of strong hemp, under a certain tension, bound tightly round by a flexible armor of copper or zinc sheathing, is free from the objections made to the spiral, or rather helical sheathing; that such a cable actually forms the connecting link between France and Algeria, and has given evidence of permanent success.

Mr. W. Hooper read a paper "On the applicability of India-rubber as a telegraph conductor." The usual mode is to manufacture the caoutchouc, and cut into tapes, which are served around the wires, consolidated by heat or by the use of solvents, both of which are injurious in their tendency to oxidation. The results obtained with five specimens of India-rubber covered wire, supplied for experimental purposes to the Govern-

ment of India, and sent out to Kurrachee in 1863, were adduced by the author, and showed that four out of the five were defective after submersion in the Indian Ocean, one only, supplied by himself, remaining perfect. In insulation, the specimen was the highest yet attained, and the perfection of the joints was fully proved. The central position of the conductor was unaltered by any elevation of temperature, and its insulation remained good, up to one hundred and fifty degrees Fahrenheit, and even higher temperatures. The mechanical properties of the core devised by the author were also shown to surpass all other materials yet produced.

At a meeting of the General Committee, it was determined that the next congress of the Association should take place at Nottingham, in compliance with a pressing invitation from the leading inhabitants of that town.

Mr. Wm. Robert Grove, L. C. F. R. S. (the inventor of the Grove Battery), was appointed President.

The meetings were attended by over two thousand members, associates and ladies. £2136 was voted for scientific purposes during the coming year.

CORNUCOPIA
NEW-YORK, Oct., 1865.

CALIFORNIA NEWS.

JAMES GAMBLE, Esq., who for twelve years was connected with the California State Telegraph Company, resigned his position as its General Superintendent on the 7th September ultimo.

He had been actively engaged in telegraphic matters since their first introduction on the Pacific coast, and it is in a great measure owing to his energy and ability that the telegraph business has grown to its present proportions, there being now some four thousand miles of lines in operation on this side of the Rocky Mountains.

The following address, signed by one hundred and twenty-three operators and employés, received by telegraph, is a gratifying memorial of the esteem in which he was held by all:

"SAN FRANCISCO, Cal., Sept. 9, 1865.

"The announcement of the tender of your resignation as Superintendent of the California State Telegraph Company is received by the undersigned agents and employés with much regret. Ignorant of the cause that has led to it, we yet feel assured it is nothing that will lessen the esteem in which you have been held by us, a lively recollection of which we shall ever entertain; while you remember with pride that from small beginnings you have seen the enterprise you have labored successfully to forward grow to its present magnitude, until ocean answereth back to ocean, and the Northern forest salutes the far-distant Southern plain.

"Please remember, also, that your uniform courtesy and kindness have erected for you monuments imperishable in the hearts of your late subordinates.

"With earnest wishes for your happiness and prosperity wherever your lot may be cast, we beg to remain

Truly yours,

"R. R. HAINES, WM. R. YONTZ, and 121 others."

LITERATURE ON THE ATLANTIC.

WHILST millions were watching with intense interest the progress of the "Great Eastern," in her recent expedition, the little world aboard the big ship had many and varied duties to perform. Literature was not neglected, a lithographer being specially retained on board. His duty was to lithograph and print the previous day's diary of events, as written by Mr. Russell and copied out by J. C. Dean. Envelopes addressed to twenty-five American journals, and to the editors of sixty-five published in England, Scotland, and Ireland, were kept in readiness, and as each day's news was told off, it was added to the stock already folded for posting. By this means the letters were sent off simultaneously and without a moment's unnecessary delay. The "Terrible" took the American bag, and would forward it from Newfoundland. A form showing the number of miles paid out, and the number run, was drawn out and signed by Mr. Canning, which was also lithographed, and a number struck off, with blank spaces for the figures. This bulletin was issued every day, and posted up in a conspicuous part of the deck, informing all of the position of the ship and the quantity of cable run. Nor was this all. A publication of high literary and artistic pretensions was issued every week from the lithographic press—*The Atlantic Telegraph*—edited by Mr. Henry O'Neil, A. R. A., and illustrated by Mr. Dudley and the editor; and it is pronounced to be the most highly-finished production ever published at sea. The frontispiece is composed of well-executed portraits of leading men engaged in the expedition; the Atlantic Telegraph flag, with its combination of Union-Jack and Stars, floats in the background; the "Great Eastern" and her guard of honor are in the front; and the whole is enclosed in a neat framework of cable. The sketches are full of humor, especially one by Mr. Dudley of Cyrus W. Field taking his turn of duty as watchman in the tank. Under the head of "Births," we find the following: "August 2d, on board the 'Great Eastern,' Sir Optimus Cable, his unfortunate father dying at the same moment." "On the 18th inst., Mr. Varley, of a Formula stillborn." The last page is occupied by a song, entitled "The Buoy I Left Behind Me"—air, "The Girl I Left Behind Me"—a portion of the said buoy being prefixed. We reprint the following lay as a sample of the contributions when all was going on satisfactorily:

THE LAY OF THE ELECTRICIANS.

AIR, "OVER THE SEA."

Under the sea! under the sea! Here's what DeSauty is saying to me;
Such testing as this is the perfectest bliss! Insulation is coming it strong.
So we'll test! test! test! with coils and Rhiometers! keys, galvanometers!
Test! test! test! that each minute all night and day long.

Chorus.

Copper and zinc! acid and stink! tink-a-tank, tink-a-tank, tink-tink-a-tank-tink.
Copper and zinc! acid and stink! success to con-tin-u-i-ty.

From shore-end to sea! shore-end and sea! see what Valentia is saying to me!
Mark May's strong relay in units B-A, of millions and trillions again.
It's so grand I can hardly trust Thomson or Varley to test! test! test!
Such a lovely con-tin-u-i-ty.

Chorus.

Copper and zinc! acid and stink! tink-a-tank, etc.

—*The Saturday Reader (Montreal).*

THE UNITED STATES PACIFIC TELEGRAPH COMPANY.

SAN FRANCISCO, Sept. 15, 1865.

THE preparations for the commencement of work by the United States Pacific Telegraph Company are now nearly completed, and in a few days a large force will commence operations on the line. The Company let the entire contract for the construction of the line from Chicago and St. Louis to this city, to Barney Morgan & Co., of New-York, a firm possessing ample means to do the work without a dollar of assistance from others. The contractors are represented by James Street, Esq., whose long experience in telegraphic enterprises, energy and perseverance peculiarly fit him for the position. James Gamble, Esq., for twelve years connected with the California State Telegraph Company, and one of the most experienced and able managers in the United States, has resigned the Superintendency of the California State Telegraph Company, to accept that of General Superintendent of this new trans-continental company, having charge of the construction of the line from this city to Salt Lake. The new line will have a double wire upon a single set of poles from this city to Fort Kearney, at which point the wires will diverge—one running to St. Louis, and the other to Chicago. The contract for furnishing the six thousand five hundred poles required to construct the line from San Francisco to Placerville, requires their delivery on the ground within thirty days. Three saw-mills at Santa Cruz—viz., those of Davis & Jordan, Waddell & Co., and Jones & Co.—are now at work cutting the poles, which are sawed from redwood, and will be uniform in size. Another contract for the poles has been made for the line from Placerville to Virginia City, to be delivered within six weeks.

From Virginia City to Austin the contract for the poles and construction of the lines has been given to John W. Coleman, an experienced telegraphist, for years agent of the State Telegraph Company at Sacramento, who will push it through with all possible dispatch. Mr. Street will leave here within the next two weeks for Salt Lake, to make contracts for poles for the line in both directions from that point. The contract with Barney Morgan & Co. calls for the construction of the line with one wire from San Francisco to Chicago by October 17th, 1866, and the completion of the line with the double wire before July 17th, 1867; but Mr. Street is confident that the work will be done far within the time specified; and it is not improbable that by July 4th, 1866, the line with one wire will be in operation from this city to Chicago. The total length of this line is three thousand two hundred and seventy miles (including both the St. Louis and Chicago branches), and six thousand and forty miles of wire will be required in its construction. There are but a few places along the route where the weather in the winter season is so cold as to preclude the carrying on of the work, and there will be no cessation of labor on the line from the commencement until the pressure of the operator's fingers on the instrument in the office in San Francisco, which tells us that the task is finished and space annihilated by the subtle messenger which travels side by side with thought, needing no Divine command that the sun stand still, or that the "shadow go backward on the dial of Ahaz," to enable it to outstrip time, and tell us the occurrences of the moment, while morning or night lags lazily behind in the valley of the Mississippi, or climbs the summits of the Rocky Mountains.

THE UNITED STATES TELEGRAPH COMPANY.

JAMES MCKAYE, Esq., PRESIDENT UNITED STATES TELEGRAPH COMPANY:

SIR:—I have been watching and waiting for your answer to the questions addressed to you by my companion in misfortune, "a U. S. Stockholder," through the columns of *The Tribune* of July 24, 1865, more than two months since; but I have watched and waited in vain.

You have nothing to say—or at least you say nothing. Yet those questions embraced matter of the gravest character.

You were asked whether the cash subscribers to the Pacific Extension—they who subscribe the money to build the line—are, by the programme, to have one quarter or one-tenth of the whole property they pay for? No answer. Who were to

have the balance—the great majority of the stock, representing the whole line? No answer. Whether the contractors for building the line are directors also? No answer.

Whether the "interest" on subscriptions which you promised is to be paid with the money of subscribers—what other fund you could possibly have to draw upon? No answer. Whether the "several gentlemen" you refer to as having subscribed liberally, have not a far greater prospective interest in the building of the line than in the earnings of the stock? No answer. Whether the line would cost more than \$1,000,000—while the stock is to be \$6,500,000? No answer. Assuming that \$1,000,000 would build the line, and those who furnished that sum would get but \$1,500,000 of stock, who would get the remaining five millions of stock, for what consideration, why entitled to it, what equities can they have as against those who furnish all the money? No answer. These questions, in substance if not in form—expressly or implied—were put to you by one of your stockholders some two months ago, together with many others no less important, yet they remain unanswered. Accordingly, myself and my fellow-stockholders not admitted to the precious secrets of the few who would "run the machine" for their own benefit, have not yet been advised by those who should be simply our agents and trustees, how much Pacific Extension stock is designed to be issued, and we are accordingly unadvised whether, if we put up \$1,000,000, we shall get the whole benefit of the expenditure, or a fourth, or a tenth. All information as to the actual cost of the line, and as to the amount of stock it is proposed to issue, has been most scrupulously withheld from us by our agents, who ask us to put up our money, and seek to tempt us by the proffer of "seven per cent interest," which they can pay only by using our own funds, and by other vague and delusive promises.

The letter of my companion in misfortune has naturally occasioned inquiry as to the cost of the line, and as a consequence, not one only, but several (I know not how many) gentlemen of intelligence and responsibility, have respectively declared *they would build the line for one million dollars*. One and a half millions of stock, sold at your circular rates, would bring that million of money. To whom, and by what authority, on what principle of equity, honor or business usage, do our agents propose to issue the rest (say five millions) of the stock?

Are you aware that a prominent and influential member of our Company, who expected to profit by the success of the programme, actually put down upon paper a list of the Directors, and perhaps some others, with varying amounts of stock set opposite to their respective names, and marks to indicate how he would expect them to vote and act in respect to his plan? "Twenty thousand dollars" was set opposite several of the names, while the larger balance, amounting to one or more millions, was set down to the (*to be*) favored few, not exceeding five in number. Did you ever see or know of that paper? I am not aware that you did. Was it ever brought to the knowledge of and approval by the Directors or the Executive Committee, or a controlling number of either body?

You may or may not know; for I am assured that you are not admitted to all the secrets of the clique to whom I refer. I do not know. But this I can say, and you must admit its truth: If that or some similar programme has received the concurrence of the master-spirits of our Company, that ONE FACT will explain all that now seems so mysterious and inexplicable; it will explain why we stockholders are not permitted to know the actual cost of the line, nor the amount of stock it is proposed to issue—neither what the line will cost the contractors, nor what it will cost the stockholders, who are to furnish the money to build it all, and yet not to own but a small portion of it.

It will explain why so much pains is taken by our agents to keep us in the dark in respect to our own property and interests. The publication of that paper would confound its authors, and startle the whole commercial public. If (as I trust is the case) you were not privy to that nefarious project, will you not endeavor to expose it and its authors, and hold them up to the just judgment of all men who duly appreciate FIDELITY on the part of trustees, and INTEGRITY and HONOR in all the relations of life?

ANOTHER U. S. STOCKHOLDER.

At the Fair of the American Institute, now being held in this city, we find the following articles on exhibition: Telegraphic and Electrical Apparatus, by Charles T. and J. N. Chester; three Telegraphic Apparatus; Register to work a line 150 miles; Sounder will work any line; Electro-Escape Attachment, by Samuel F. Day; Pocket Magnetic Machine, by S. B. Smith; Gutta-Percha goods and Telegraph Cables, by the Bishop Gutta-Percha Company; Pierce's Magnetic Globe, by C. Scribner; Electro-Medical Bath Apparatus; Electro-Medical Apparatus, etc.; one case extra Appliances or Electrodes; Helical Adjuster, illustrating cutting of a current by closing a coil; Electro-Medical Helix extra currents (Faradaic); Six current Electro-Medical Apparatus; Pocket Electro-Medical Apparatus; one Carbon Element for Battery; one pair of galvanic Insoles; one set duplicate reserve galvanic Electrodes, by Dr. Jerome Kidder; Electric Annunciator, by John Blackie; fine naked wire Helix Telegraph Instruments, Rhetostat with escape appendage, Receiving Magnetic and Repeater, by L. Bradley; Photo-Electrotype, by A. F. Bunson.

A LINE of telegraph was opened for business from Brazos to Brownsville, Sept 19th. The first message went through to the Adams Express agent, Mr. Hanks, telling him that a mail had gone up the river by the steamer Tampico.

Correspondence.

THE following letter was received too late to be acted upon by the Convention, and has been sent us for publication:

"OTTAWA, ILL., September 12th, 1865.

"To the National Telegraphic Convention, assembled at the Briggs House, Chicago, Ill.:

"GENTLEMEN:—I take the liberty of addressing your honorable body, to acquaint you that there is an invention now in process of patenting, we flatter ourselves will be of great benefit to further the interests and greatly facilitate this wonderful branch of science.

"The invention wonderfully improves and expedites the sending of messages *at all times*, and in *all weathers*. Its great feature is in *improving the insulation of the lines*, as by this our principle *no electricity is lost, as now, at the poles*.

"The main wire is insulated before it comes to the telegraph pole, on each side, and the electric current is diverted and carried around the poles upon a short section of gutta-percha covered copper wire of No. 16, so as to preserve the same conducting power, and at the same time altogether avoid insulating contact, as now at each pole. We thought it advisable at this time to draw your attention to what is doing in this, your field of operations, as we feel it would prove of particular value to your honorable body convened to possess yourselves of, and recommend its adoption on your lines of telegraph.

"It is known as Mann & Tavener's improvement in *insulating telegraph lines*. As our model and drawings are now just sent to the Patent Office we have no model to send you; but if you desire to confer with us respecting it, will say we can send you a drawing now in our possession that will explain our invention.

"We remain, gentlemen, very respectfully yours,

"MANN & TAVENER, P. O. Box 154."

PITTSBURG, October 12, 1865.

TO THE EDITOR OF THE TELEGRAPHER:

EVERY operator, I believe, has a different theory about the "Resistance of Relays," so that Mr. Stearns and "Missouri" cannot agree. I would respectfully offer an explanation which seems to me correct, hoping it will bring out much more on this all-important subject.

Galvanism, like every other force, follows the universal law—what you gain in speed you lose in power. Gain in tension is loss in quantity; and vice versa. The quantity of magnetism depends on the tension of the current of galvanism. This is easily susceptible of proof; for, as "Missouri" says, "I never yet saw a relay but grew stronger as well as warmer by every cup of battery attached;" because you increase the tensile or moving force by every cup added, while you increase the "quantity"—whence the heat—by additional metallic surface exposed to acids. The quantity of steam depends upon the area of heating surface—the power, tension, all things being equal—upon the fierceness of the fire.

An imponderable body cannot tire by "running round a circle," and the wires are coiled—to afford the greatest amount of resistance to the line current in the smallest space—as near the poles of the magnet core as possible.

It is my experience, at least, that magnets "burn" on the straight wire connecting the helices and screw cups for line wire; and only in extraordinary cases is the lightning strong enough to burn the helices themselves.

I do not believe that resistance on a straight line produces heat. Heat is the natural resultant of the action of the materials of a battery. Put your hand into a cup of sulphuric acid, if you doubt. It only becomes palpable on a telegraph line when the line "thins;" and while the "tension" of the current throws out or induces magnetism, the "quantity," if sufficient, burns it.

A free magnetic needle is affected by a charged conductor similarly as a magnet would, because of the magnetism—too slight to be otherwise perceptible—induced in the neighborhood. "Magnetic vicinity" of the conductor by the *resistance* offered to its passage. Cut the conductor and insert a fine wire, and it burns immediately.

Trusting soon to see THE TELEGRAPHER weekly,

I am, respectfully,

W.

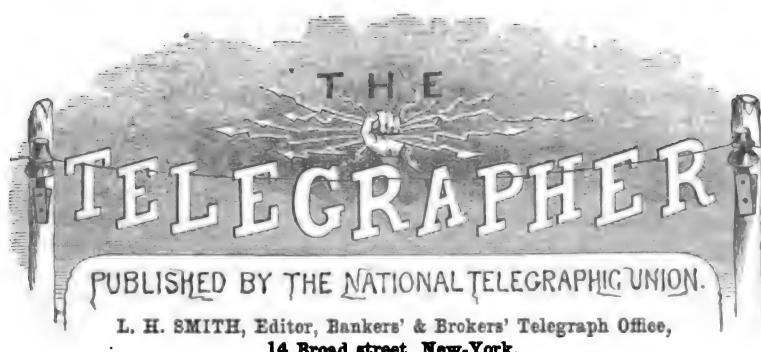
At an extraordinary meeting of the stockholders of the Atlantic Telegraph Company, held in London on the 12th October, the resolutions adopted at the meeting in August were rescinded, and it was unanimously resolved to increase the capital to two millions sterling by the creation of 160,000 new shares, at £5 each, such shares having a preferential dividend of five per cent.

In the terms of this resolution the Board of Directors of the Company forthwith issued a prospectus, inviting subscriptions for 120,000 of the above new issues.

It was stated at the meeting that the cable on board the "Great Eastern," and also the submerged portion, had lately been tested and found to be in perfect condition.

Unabated confidence was evinced in the prospects of the undertaking.

THE American Institute has awarded its gold-medal premium to the Bishop Gutta-Percha Company, for gutta-percha goods and telegraph cable.



WEDNESDAY, NOVEMBER 1, 1865.

A REFUTATION.

MEN oftentimes think they talk wisely when, if the truth be known, they really do not understand what they are talking about. Then, again, some people have a knack of misrepresenting everything they handle with their tongue or pen. This is the case with a couple of "local" editors in Rochester. These two gentlemen somehow came in possession of copies of the Chicago papers which published a synopsis of the proceedings of the late Convention of the Union, and distorted them unkindly if not shamefully.

The Union and Advertiser is up to that sort of thing, and it is not to be expected it will ever do different, but *The Democrat* is too highly respectable to do anything of the sort.

They both draw the inference from the motion introduced, that because the members object to Commercial Telegraphic Colleges, they are opposed to any one learning the profession of the "Key." This is a gross mistake, as they might well know by careful reading. The members of the Union *do* object to these colleges professing to turn out a first-class—or even second-class—operator in three months, when they know very well they cannot do it, and ought to feel they are taking the student's twenty-five or thirty dollars fraudulently. Telegraphy cannot be taught completely within the four walls of one of these colleges, because they do not contain the elements necessary. To shield the ignorant and unsuspecting from imposition, do we protest against the assumption of these "quacks" of the profession. We assert, without fear of contradiction, that not one member of the Union will or ever has objected to competent persons learning telegraphy, provided they seek the knowledge where only it can be found—in a telegraph office—pure, simple and complete.

The most remarkable assertion of these two country papers is, that the Convention voted that women shall not be permitted to learn our art. This is untrue. The motion was simply in reference to admitting "lady operators" to membership in the Union, and had no reference to their learning the key-music. We cannot approve of the action of the Convention even in this particular, but we are consoled with the belief the delegates failed in their intention by unsound legislation. The qualification clause in the Constitution remains intact, and we hold that a "lady operator" filling the measure of these qualifications may become a member if she receives the requisite three-fourths vote of the members of any District.

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We acknowledge the receipt, and return thanks for a complimentary ticket to the Second Annual Ball of the Boston District, to be given at Fraternity Hall (554 Washington St., that city), on Thursday evening, 16th inst. Our many duties will, we regret to say, prevent us from attending.

For good and sufficient reasons we shall not publish the letter of Mr. Wheeler's, mentioned in our remarks in the last issue of this paper.

TELEGRAPHIC MISCELLANEA.

CORRESPONDENTS will please notice the change of our address, also that of the Treasurer of the Union.

The proceedings of the Convention, which make one hundred and seventy-six pages of legal cap, came to hand on Monday, the 16th October, after having, with four other packages, containing over one hundred and fifty dollars, lain for two weeks in the United States Express Office in this city. They were detained simply because the number (14 Broad st.) of our office was not indited thereon. As this issue will contain but eight pages, and the next closes the volume, we have decided not to print them in the regular issue, but in a supplemental sheet of some twelve pages of solid matter. These proceedings are now in the hands of the printer, and will be supplied to the members as early as possible. The Constitution as amended cannot be printed until after the proceedings are in type. Due notice will be given when they will be ready for distribution.

The first volume of THE TELEGRAPHER will close with the issue of the 15th inst.

OUR Correspondents and District Directors will please be particular and write the number (14 Broad st.) of our office *plainly* upon each letter or package intended for us, to avoid delay and insure them reaching us.

ON DIT.—That Mr. McKaye has resigned the presidency of the United States Telegraph Company, and Mr. Commissioner of Internal Revenue Orton has been elected to fill his place.

WE ARE AGAIN under obligations to the Hon. Henry O'Reilly for a copy of the third of his American anthems, entitled "The American Freedman." We wish we were a poet and a musician so as to be able to speak more in detail of these spirit-stirring hymns. For sale by the American News Company.

THOSE OF OUR READERS who desire to construct telegraph lines will please notice that Ottinger & Co., Constructing Engineers, advertise in THE TELEGRAPHER, a circumstance which always insures success.

SUBSCRIBERS often write and telegraph us to continue sending them THE TELEGRAPHER after their subscriptions have expired; that they will remit when we notify them. We have no time to keep a mass of petty accounts of expired subscriptions. Our instructions are to erase all expired subscriptions, and our notification of such expiration is the stoppage of the paper. Those of our subscribers who think we have time to do everything will please take note.

WE acknowledge the receipt of the "Resolution of Thanks" passed by the Convention to "The Editor of THE TELEGRAPHER." We are much obliged, and feel duly proud of this expression of our friends.

H. W. CARPENTIER, Esq., President of the California State Telegraph Co., came a passenger by the Ocean Queen, which arrived in this port on the 11th October.

A LETTER from Boston says: "We are happy to learn that Mr. T. A. Davin, who has been suffering from inflammatory rheumatism, at his residence in Hyde Park, the past ten days, is much better." We have received a call from Mr. Davin, who seems but a shadow of his former self.

THE office of the United States Company, in Boston, dispenses with the services of lady operators to-day.

THE second annual ball of the Boston District will take place on the evening of the 16th inst., and that of the New-York District on the 19th of February next.

On Saturday, the 14th October, Sir Morton Peto and party, consisting of some fifteen persons, visited the general office of the American Telegraph Company, 145 Broadway, by invitation of the Directors. Colonel E. S. Sanford, the President, and General Marshall Lefferts, the Engineer and General Superintendent of the company, personally conducted them through the five-story brown-stone building, exclusively devoted to telegraphic operations.

THE bark Edwin and Lizzie, which arrived at Halifax on Monday, Oct. 9, reports that on the 10th of September, in latitude 52°, longitude 34° 48', saw a red buoy marked "Telegraph 3" (or 5), red flag on mast, nearly gone; ball all right; thinks it was detached from the cable.

THE RUSSIAN-AMERICAN TELEGRAPH.—Minister Clay has transmitted to the State Department an official copy of the conditions stipulated between the Russian Telegraph Department and Hiram Sibley for the establishment of telegraphic communication between Russia and America, by which the exclusive right is granted to the latter Plenipotentiary of the American Western Union Telegraph Company for thirty-three years from the day the line shall be opened, the Russian Government to grant a further term as it may judge convenient.

In order to encourage the undertaking the Government grants to the Company an allowance of forty per cent on the net produce of dispatches transmitted by it over the lines to and from America; and, in order to contribute as much as possible to the success of the undertaking, the Minister of Public Utility will adopt the measures necessary for securing the Company's telegraph from being maliciously injured by the local popu-

lation, but at the same time the Government refuses to take upon itself any responsibility for such injuries, of any nature whatsoever. The Company is allowed to import materials free of duty.

CHANGES.—Mr. P. W. Bossart, formerly of the American Company's Baltimore office, has taken a position with the Bankers' and Brokers' Company in that city.

Mr. M. J. Minihan, formerly of the B. & O. R. R. Line at Piedmont, West Va., has taken a position in the United States Company's office at Pittsburgh.

Mr. H. W. Cowan, formerly with the American Company in this city and Boston, has gone with the Western Union Company, in Buffalo.

Mr. J. H. Bunnell, recently of the Western Union Company's office in this city, has gone into the American Company's employ. This gentleman is the inventor of a telegraphic repeater.

APPARATUS FOR THE RUSSIAN TELEGRAPH.—In the southwest corner of the building in which the American Institute is holding its fair in this city, may be seen a sample of the instruments that are to be used by the Collins Russian Telegraph Line, seventy-five sets of which have been manufactured in this city by the Messrs. Chester. The instruments are fixed in a box, which is quickly converted into a table by screwing on the four legs at the corners. For transportation, two of the boxes are fastened together in one package; and when these reach the station, the operator has merely to screw on the legs, and connect the proper wires with the air and ground lines, when he is ready to receive and transmit messages. The manufacturers expect orders for an additional supply of these instruments, as some two or three hundred will be required for the whole line.

By the steamship Scotia, from Liverpool, Oct. 7th, we received the following: "Admiral ElMot, as Chairman of the Ocean Telegraph Company, publishes a letter in *The Times* containing evidence that 'Allen's Trans-atlantic Telegraph Company,' who propose to establish communication with America via Portugal and Azores, has no concession from the Portuguese Government; that such concession will probably be granted to the Ocean Telegraph Company only, and that as soon as obtained the Ocean Company will be formally launched.

METROPOLITAN FIRE DEPARTMENT.—A communication was received from the Superintendent of the Fire Alarm Telegraph, asking that application be made for the use of the cupola of the City Hall as a look-out station, and that the same be fitted up for that purpose.

ELECTRIC PACKAGE EXPRESS.—Dr. D. D. Parmalee, of this city, has one of his package carriages running constantly round a circular railway at the Institute Fair. The carriage is driven by an electro-magnetic machine, the electricity being generated by a stationary battery, and conducted along the rail.

ELECTRICITY is distributed on the surface only of bodies; the conducting power of a wire or ribbon, however, is not in proportion to its surface, but to its size—to the area of its cross section.

PATENT CLAIMS.—50,814.—TELEGRAPH CABLE.—William Peter Piggott, London, England. I claim, 1st. The method of giving a static charge to a cable and the means by which this is accomplished, as is set forth, and the manner in which I constructed my generators, and which are equally capable of being used either on land or submerged in sea or other water for telegraphs, and which may be used for other purposes.

2d. That application and use, to and in the transmission of electric signals, of statically charged cables, constructed and worked in the manner hereinbefore described.

3d. The combination in an electric cable of two wires or series of wires of opposite electrical denomination, one of such wires or series of wires being connected with earth at each end by corresponding earth-plates, whilst the other wire or series of wires is connected to a galvanometer or receiving instrument, which is itself connected with earth by a corresponding earth-plate.

4th. The combination in an electric cable of two or more wires or wire-stands of one electrical denomination, connected through a galvanometer or receiving instrument with earth, and a wire-core or covering of opposite electrical denomination in permanent connection with earth at each end, as hereinbefore described.

5th. The application of my "ganglions" to old or damaged cables of the ordinary construction, for the purpose of working the same by the aid of induced electricity, in the manner hereinbefore described.

50,872.—**LIGHTNING-ROD JOINT.**—J. B. Lyon, Cleveland, Ohio.

I claim uniting the sections of tubular lightning-rods by means of the short tubes, B, the grooves, c, c', and c", and the point, d, as herein set forth and described.

INSULATOR FOR LIGHTNING-RODS.—George W. Otis, Lynn, Mass. Patented Aug. 26, 1851. Extended Aug. 25, 1865.

I claim the insulated support and point for lightning-rods, consisting of the insulated point and opening in its shank, the insulating cylinder of glass, with its lip or flange, and the wooden collar for securing the whole of the building, all as described.

MARRIED.

In Cincinnati, Ohio, on Tuesday, October 2d, Mr. E. T. Gilliland, operator in the Western Union office in that city, to Miss Rose A. Baker.

In Orange, N. J., at the First Baptist Church, on Tuesday, September 12th, by the Rev. Dr. Horr, Mr. Jabez Fearay, Manager of the American Company's Newark office, to Miss Mary McLeod, of Orange.

At Colchester, Conn., September 27, Wm. C. Havens, Assistant Manager Insulated Lines Telegraph Company's office this city, to Miss Nellie, daughter of the late Nathaniel Hayward.

DIED.

At Alden, Erie Co., N. Y., October 18th, Mr. Charles J. Ferris, formerly an operator in the American Company's office in this city.

QUOTATIONS OF TELEGRAPH STOCK.

Western Union,.....	\$100 shares....	70	Russian Extension,....	\$100 shares....	30
American,.....	"	120	United States,.....	"	

DISTRICT PROCEEDINGS.

BALTIMORE DISTRICT.—Regular meeting held October 1st. Fines imposed upon members absent from last meeting. Minutes of last meeting stand approved. Committee on room reported suitable room on Fayette street, offered to District free of rent. Offer accepted. Messrs. Wilson, Reiley and Kerner appointed committee to fit up room and assess members for the expenses incurred. Mr. J. F. Morrison's application for membership referred to Local Director. Mr. Orin Jenks elected a member. Messrs. Allen and Mullinix's application rejected, Local Director reporting unfavorably.

The Director, with Messrs. Wilson, Vandersloot, Bossart, Kerner, Hahn, Allen, Ways, W. H. Stewart and C. C. Wolff, appointed a Committee of Inquiry as to the expediency of giving a ball.

CALIFORNIA DISTRICT.—The first annual meeting of this District was held August 6th. The Director presiding. Frank Bell, of Los Angeles, F. Gunzendorfer, of Monterey, Cal., and W. W. Smith, of Virginia City, Nev., were elected members. The election of District officers being in order, Messrs. M. Hodge, of Carson City, and J. Urquhart, of San Francisco, were nominated for the office of District Director and Treasurer, and Wm. Brown, of Stockton, and J. K. Lovejoy, of Petaluma, for District Secretary. Messrs. Hodge and Brown receiving the largest number of votes were declared elected. Adjourned.

Regular meeting held Sept. 4th. The Director presiding.

Messrs. Daniel Leahy, of San Francisco, and R. J. M. Franklin, of Aurora, Nev., were elected members.

Mr. Jacobs, of Sacramento, offered a resolution requesting and authorizing the President, by telegraph, to appoint some person to represent this District in the Convention just assembling in Chicago. Carried.

After transacting business of a local character, the meeting adjourned.

LOUISVILLE DISTRICT.—Regular meeting held October 2d. In absence of the Director Mr. De Grove presided. The District Treasurer reported the amount of dues received this quarter, \$67; District fund in hand, \$64.

Mr. Biggert proposed Samuel Carey, of Lexington, Ky., for membership.

The Local Director being absent, the names proposed for membership at the last meeting could not be acted upon, and were, therefore, laid over until the next meeting.

Mr. Vestal offered the following:

"Resolved, That the thanks of the Louisville District are due and are hereby tendered to Mr. E. B. Chandler, and the members of the Chicago District, for the kind attention shown our delegates to the recent N. T. U. Convention held at Chicago."

"Resolved, That a copy of the above resolution be sent to the Director of the Chicago District, and also to THE TELEGRAPHER for publication."

Adopted unanimously.

Mr. Biggert, District Treasurer, offered his resignation.

Mr. Vestal moved that he be requested to withdraw his resignation, and that he be allowed fifty dollars per annum as a slight consideration for his services as Treasurer. Carried.

Mr. Biggert consented to let his resignation lie over until next meeting.

The report of the delegates to the Convention was read and ordered on file.

A motion was carried that the thanks of the District be presented to the delegates. Adjourned.

PHILADELPHIA DISTRICT.—An adjourned meeting of this District was held on the 9th October. The Director presiding.

Minutes of the last meeting read and approved.

Messrs. J. Winthrop, L. J. Lafourcheur, Thomas A. Charles, Harry C. McKeever, and Charles Conn were elected members.

Mr. Buckwell moved that a committee of three be appointed to draft resolutions of thanks to the members of the Chicago District for their liberal hospitality at the late Convention. Carried. Messrs. Buckwell, Black, and Robinson were appointed such committee.

Notice was given that a motion would be made at the next meeting changing the number required to constitute a quorum from ten to eight members.

The resignation of James Merrihew as a member was accepted, also the resignation of George W. Porter as District Secretary.

The Director announced that nominations for District Secretary were in order. Messrs. Blackman, Robinson, and Buckwell were nominated. The latter, receiving seven votes out of nine cast, was declared elected.

Fines against Messrs. Ziegler and N. J. Snyder, for non-attendance at meetings held on Sunday, were canceled.

Adjourned till the first Monday in November.

BOSTON DISTRICT.—Special meeting held on the 20th September. A committee was appointed to make arrangements for a ball, to take place early in November, the net proceeds of which will be used to aid in furnishing a meeting-room for the District.

The report of the delegates to the Convention was received with great applause. A committee was appointed to draft resolutions expressive of thanks to the Chicago District for courtesies extended to our delegates.

A resolution of thanks to the delegates of this District was adopted; also the following:

"Resolved, That the Boston District hear, with the liveliest pleasure, of the success of our organ, THE TELEGRAPHER, and of the intention of the Union to publish it twice a month instead of once a month as heretofore."

"Resolved, That we, as a body, hereby reaffirm our determination to support and increase, and pledge ourselves to leave nothing undone that will tend to make it, in every respect, worthy of the class it represents."

Cheers were given for the Chicago District, the Boston delegates, and THE TELEGRAPHER, respectively.

SPECIAL MEETING held on October 11th.

A committee was appointed to nominate candidates for District Treasurer and for a Local Director for Boston.

The following names were reported by the committee: For Local Director for Boston, J. W. Duxbury and D. D. Devereux; for District Treasurers, C. G. L. Pope and B. G. Winter.

It was voted that the election should take place on the following Monday, 16th inst. Adjourned.

At the election, held on the 16th October, the following vote was polled: For Local Director of Boston Mr. Duxbury received 17, Mr. Devereux 6, Mr. Pope 1. Mr. Duxbury was declared elected. For District Treasurer Mr. Winter received 20 votes, Mr. Pope 19. Mr. Winter was declared elected. Adjourned.

THE REGULAR MEETING OF THE NEW-YORK DISTRICT will be held on the evening of the SEVENTH INST. A prompt and full attendance is respectfully requested.

WASHINGTON DISTRICT.—Regular meeting met October 7th, and adjourned for want of a quorum to Monday evening, the 9th.

Adjourned meeting met on the 9th October, Mr. Clarke Secretary *pro tem.*

Messrs. M. T. Paoli, American Company's office, Charlottesville, Va., and W. W. Thweatt, United States Company's office, Washington, were elected members.

Messrs. Flowers, Schiebler, and Gallup were nominated as candidates for District Treasurer, Mr. Stidham, Treasurer elect, having moved to Baltimore. Mr. W. F. Schiebler, receiving a majority of votes, was declared elected.

Mr. Young, from the delegation to the Convention, stated the necessity of electing a Local Director, and moved an election. Mr. Morell Marean was unanimously elected.

The Director announced that the vote of non-resident members upon the resolution increasing the District fine to \$1 50 per year received 21 yeas, this being a majority.

Mr. Young moved to amend the District By-Laws, changing the local monthly dues to twenty-five cents, notice having been given at the last meeting. A discussion ensued, when Mr. Berry called for the question. Vote commenced and left open to obtain the votes of absent members.

Mr. Berry offered the following:

"Resolved, That the thanks of each and every member of this District be and are hereby tendered to Messrs. Young and Clarke, delegates from this District to the late Convention, for the able, earnest and highly creditable manner in which they performed the many arduous duties devolving upon them."

"Resolved, That as firm supporters and earnest laborers for the continued success of the Union, whose broad wings will soon encompass the entire States—from Oregon's coast to shipbuilding Maine—we, with one accord, tender to that Conventional body our special thanks and hearty approval for the high tone, clearness of thought and distinct ring which marked the entire proceedings."

"Resolved, That we will ever cherish in grateful remembrance the many courtesies and flattering attentions kindly proffered and lavished upon the delegates of this District by the gentlemanly and efficient telegraphers of the Chicago District." Adopted unanimously.

Mr. Atwater gave one month's notice of a motion to raise the non-attendance fines to fifty cents. Adjourned.

PHOTOGRAPHS OF PROFESSOR MORSE.

A FEW copies of a large-size photograph—8×10 inches—of Professor Morse, giving name and birthplace, can be obtained by addressing the Editor of THE TELEGRAPHER, care of Bankers' and Brokers' Telegraph, No. 14 Broad street. Price, one dollar each.

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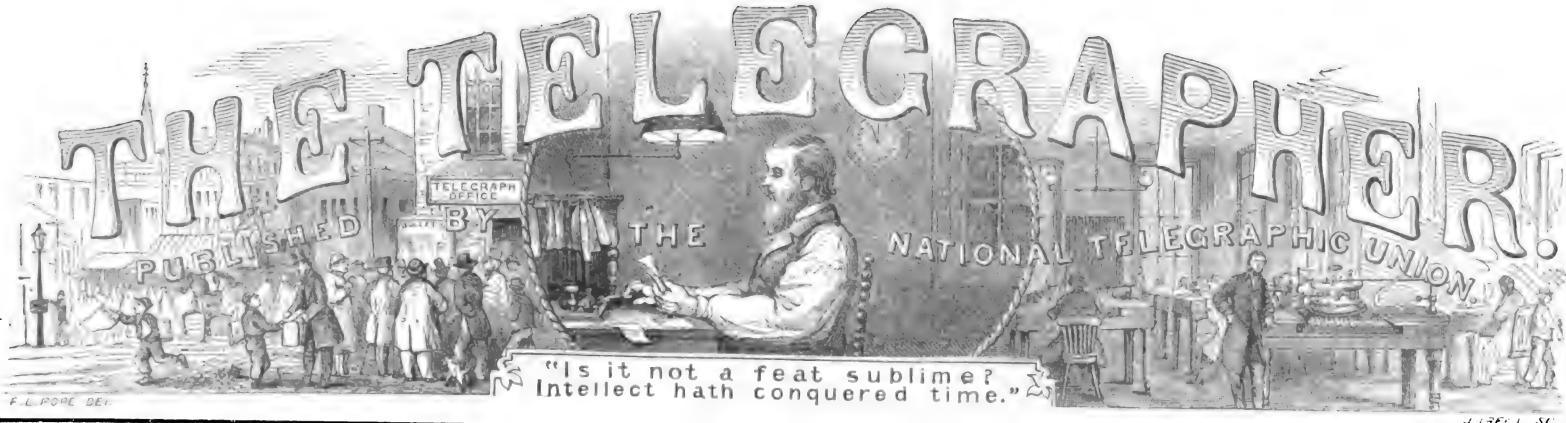
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W. E. RICE Sec.



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**GENERAL OFFICERS
OF THE
NATIONAL TELEGRAPHIC UNION.**

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W. H. YOUNG, VICE-PRESIDENT, U. S. Tel. Office, Washington, D. C.
L. H. SMITH, TREASURER, B. & B. Telegraph Off., 14 Broad St., N. Y.
J. C. UPHAM, RECORDING SECRETARY, P. O. Box 4064, Boston, Mass.
S. P. PEABODY, CORRESPONDING SECY, Box 1021, St. Joseph, Mo.

TELEGRAPHY IN AUSTRALIA.

BY MONSIEUR H. BLERZY.

THE Australian colonies possess very extensive telegraphic lines, which extend in space nearly 4000 *kilometres* the length of the meridional and oriental coasts, from Southern Australia to the more northern part of Queensland. In each of the provinces the local government has established telegraphic wires and its tariff of charges.

Southern Australia had, in the month of May, 1863, thirty offices and 1500 *kilometres* of wires. Victoria had sixty-two offices, and 4300 *kilometres*; Southern Wales, forty-six offices, and 4700 *kilometres*; finally, Queensland, nine offices, and 240 *kilometres*. It has been proposed to the parliament of this last colony, to vote the sum of four millions of francs, in order to extend telegraphic communications to the river Albert, on the Gulf of Carpentaria, where they would be united to the Dutch colonies of the Sunda Islands, and accordingly to the Oriental Indies, by means of submarine cables.

The Morse "receiver" is everywhere in use, except on some surroundings of Southern Australia, and on the railroads of Southern Wales. The number of dispatches attains 400,000 a year, and the receipts are near two millions of francs.

It is easily conceived that the construction of all these lines has not been without difficulty, in country where the stations of the planters are greatly separated. The most difficult parts to traverse have naturally been the frontiers of the provinces, and particularly the vast sandy plain, Coorong, which extends between Southern Australia and Southern Wales. The more recent establishments of occidental Australia, at the south-western point of the continent, are still deprived of the benefits of telegraphic communication, and will be, no doubt, destitute yet a long time, as they are separated to the east by a great desert, the land of Nuyts, which appears impassable. It is, however, in the district of King George, that one of these establishments, which retains the English mail, which is delivered once a month from Point de Galles to Melbourne, in making the circuit of the western continent. A colonial steamer, which is in readiness, immediately embarks with the dispatches to the destination of Adelaide, and then starts, whilst the vessel of the peninsular and oriental company stops to take in coal. Adelaide is then the first city which receives the European news, which are immediately transmitted by telegraph to Melbourne, to Sidney, and to all the principal points of population of the four provinces.

In Tasmania, a telegraph line, which unites the two principal cities, Launceston and Hobart-town, covers the intermediate localities, and extends towards the north as far as Georgetown at the mouth of the river Tamar. It is known that a submarine wire had even been immersed between Tasmania and the province of Victoria, but it did not last long, and has not yet been repaired. The bottom of the sea, is very bad, it is said, for a cable. Nevertheless, this wire would be of an easy maintenance, as the district of Bass is passable, of which the least width is about two hundred *kilometres*, in nearing several islands, and without meeting more than one hundred *metres* of water.

Between Sucz and Adelaide, the extreme points of the telegraphic lines of the two antipodes, thirty to thirty-five days are yet necessary, in order to communicate by way of the steamers. This delay will be reduced to fifteen and twenty days, when the India wire is completed. It is known that the delay is still too great, considering the great commercial interests which exist in those countries. For a long time it has been thought to establish a complete telegraph line to the Australian colonies. Since

1859, an English contractor proposed a line which would reach the oriental extremity of Java, and would terminate at Brisbane, in the Moreton Bay, skirting the eastern continent; the length was over 5600 *kilometres*, divided in five sections, about equal. At this time the colonization had hardly commenced in the immense province which is constituted in a separate government, under the name of Queensland, and Brisbane is the most northern city. The plan proposed offered numerous difficulties, as the oriental coast is surrounded by dangerous ridges, the bottom is always rocky, the sea has no depth, as in the neighboring latitudes of the Sunda Islands, and the Philippines, vessels casting anchor every night, in order to avoid the perils of a nocturnal navigation in the midst of banks of rocks. Serious dangers to the cables would have been the result. It is thus that the Singapore wire at Batavia was destroyed without having been able to work more than a few months. To this first project no attention was paid. At this time there was but little knowledge of the interior of the Australian continent. It was thought that there could only be found marshes or poor lands for culture, perhaps impassable even to the travelers. They did not think of a land line between the northern and southern coasts; only the plan of which we have just spoken, appeared possible. In these later years, many explorers have traversed Australia, and have discovered a direct passage. The country contains numerous pastures where planters might be established, who would oversee, and would themselves maintain the telegraph line.

That an air line should be preferable to a submarine is doubtful to no one, especially as the distance is less by land than by sea; in this case, the route by the interior would be much shorter to the Gulf of Carpentaria, and in order to unite it to the more northern establishment of Queensland, they must land at the river Victoria, near the meridian of one hundred and twenty-seven degrees, and almost directly opposite Adelaide. By this route only two cables would be necessary: one of 1050 *kilometres*, between Java and the Portuguese colony of Timor; the other of 650 *kilometres*, between Timor and Australia. The air line would have 2000 *kilometres* of development; total length, 3700 *kilometres*. In valuing the submarine cables at three thousand francs the *kilometre*, and the air lines at one thousand francs, this would be a total expense of six millions, which is not above the colonial resources, nor superior to the services which are expected from these communications.

Unfortunately, the interior of the Australian continent appears destitute of woods; the construction of the air lines would be very difficult, perhaps impossible, on account of the transports of material that would be demanded. Before engaging in this, it is at least necessary that the planters should have established their stations and their flocks in these countries. Judging by the incredible rapidity with which the other provinces have been colonized, it is thought that this will not be long. In the mean time, the plan by the Gulf of Carpentaria appears more easy of execution, and offers a length of cables but a little more extensive. It can be added that these seas have not the great depth, by some thousands of metres, which cause such trouble in the Mediterranean; bottom is found at one hundred metres at the most, and the navigation is not very extensive in these latitudes.

The Australian colonies give proof of so much energy and ardor for the execution of their great public works, that it will not seem strange that this enterprise is completed with success. Already the question is discussed, and the funds necessary to cover the expense would soon be found, thanks to the aid which the local governments offer.

If one of these projects is put in execution, it is desirable that the monopoly of the telegraphic communications between India and Australia is not conceded to a company. There has been for some years many examples of privileges of this nature accorded to men who know not how to profit by it. Moreover, it is quite evident that the correspondence will be very abundant in that direction, in order to maintain several lines.—*Annales Telegraphiques.*

IT IS RUMORED that the Western Union and the American Companies are to consolidate at once. We are informed no confirmatory steps have recently been taken in the matter. That this consolidation will be effected seems probable, but when or how soon is not yet known.

SELF-ACTING APPARATUS FOR STEERING SHIPS.

BY J. P. JOULE, F. R. S.

At a meeting of the Institution of Engineers in Scotland, held on the 18th ult., the following paper on the above subject was read:

"Some investigations in which I have been recently engaged, have led me to the construction of magnetic needles, having considerably greater directive power than those in common use. It has occurred to me that it might be possible to apply the power, thus increased, to the purpose of the automatical steering of ships. My idea is to suspend a large compound system of needles or magnetic bars, in the way first described by Professor Thompson, viz., by threads or fine wires attached above and below the system. By means of an electro-magnet relay, it would be possible to start a powerful machine in connection with the tiller whenever the ship deviates from a prescribed course.

"Suppose a system to be composed of a thousand 4-inch bar magnets, each one-fourth of an inch in diameter, arranged in a vertical column, say five in breadth and two hundred in height. According to a rough estimate I have made of the directive force of such a system, I find it to be equal, at one inch from the axis of revolution, to three hundred grains, when at right angles to the magnetic meridian. This corresponds to thirty-one grains at 6° deflection, and five grains at 1°. Five grains would be amply sufficient to overcome any resistance to motion offered by a mercury commutator, and thirty grains would be more than sufficient with a properly constructed solid metallic commutator. I would have a bent wire affixed to the lower end of the system of magnetic bars, one extremity of which should be immersed in a central cup of mercury, and the other should dip in one or the other of two concentric semi-circular troughs of mercury exterior to the central cup. I would place the central cup in connection with one of the poles of a Voltaic battery. The other pole must be in connection with a branched conductor leading to two electro-magnets. The free wires of these electro-magnets should be put in connection with semi-circular troughs. By this arrangement it is obvious that, accordingly as the wire carried by the magnetic system is immersed in the one or the other of the semi-circular troughs, one or the other of the electro-magnets will be excited. An armature should be placed between the two electro-magnets, so as to reciprocate between them whenever the wire passes from one semi-circular trough to the other. In so doing, I would have the armature suitably connected by levers, etc., to operate on easily-acting valves (throttle-valves for instance) placed in steam-pipes proceeding from a steam-boiler to opposite ends of a cylinder. A similar arrangement might be made for working the exit-valves. The piston of this cylinder should be connected with the tiller in such sort that whenever the ship turns to the right, the helm will be put to port, so as to bring her back to her course.

"It is obvious that if the dipping bent wire is in the direction of the magnetic axis of the compound system of magnets, and the division between the semi-circular troughs is in the direction of the ship's length, the ship will be kept directed to the magnetic North. By turning the commutator in the direction of the hands of a clock, the ship will at once change to a course the same number of degrees west of north. The use of such an apparatus as I have described would of course be limited to very extraordinary circumstances. In general practice it will be impossible advantageously to displace the intellectually guided hand of the steersman, whose art consists in a great part in anticipating the motion of the ship, and, in heavy seas, in directing the ship so as to encounter them with safety."

In the discussion which followed the reading of this paper, Professor Rankine said that from Dr. Joule's description of this contrivance it appeared to be practicable, and that it would work when executed. The shifting of the tiller by the action of the steam applied to a piston was a practice already known. The new part of this invention was the self-acting method of operating upon the valve, which regulates the admission of the steam to the cylinder. Now, although Dr. Joule had said that it keeps the vessel in a particular course in calm weather, but would require the assistance of a helmsman in rough weather, yet he believed it would turn out to act just as a skillful steersman did. The steersman in crossing a wave allows the ship to fall off a little, and then brings her up again; and that was what he thought his contrivance would do—it would allow the bow of the ship to fall off a little at one time, and bring it up at another, and would always correct the deviation. He thought that in practice it would be found to do everything that a skillful helmsman does in crossing the swell of the Atlantic. The fact was, that he had a better opinion of its practicability than Dr. Joule himself seemed to have.

Dr. Joule remarked that a great improvement might be made in the compasses of ships. In coming from Liverpool that morning by steamer, he observed the mate "tapping" the compass to get it to work. Now, he had no confidence in a compass that required tapping. He thought there was no plan equal to that Professor Thomson had introduced, having the instrument fixed at the top and bottom to a filament. With regard to the combined magnets, it was simply using a pile of bars or magnets, so as to increase the power. The bars might be circular, or flat, or otherwise; and as to the number, suppose there were five to begin with, four inches long, and half an inch asunder, they could be piled up so as to give a directive power many times as great as that of one magnet. The oscillation was nearly the same as when only using one, although the power was increased. The magnets could be continued up to any height desired. The oscillation would be at the same speed as a light bar; but there would be power to

set in motion a relay, which, communicating with the valves, would let off and on the steam.

Professor Thomson said he felt much interested in the degree of separation of the bars. In his endeavors to control the pendulum of St. George's Church clock by an electric current from the Observatory, he adopted the plan of forming a magnet of a number of bars of watchmaker's rod-steel, but he did not find the directive power increased in proportion to the number of bars; for instance, he found that a magnet composed of sixty-nine bars did not give more than about twelve times the power of a single bar. It would be supposed that one hundred bars would have one hundred times the directive force of a single bar, but he found that when placed close together they demagnetized each other temporarily to a large degree, and recovered their previous magnetic strengths when separated. It thus appeared that the power depended on the distance they were placed apart, so that if they were placed on the principle adopted by Dr. Joule, the power might be increased five or six-fold. The advantage of separating the bars even a small distance was great; and, if circumstances permitted that they could be separated widely, then the power was still further increased.

Mr. J. W. Lawrie asked how it would do to separate them two or four inches.

Dr. Joule said that depended on the length of the bars. His bars were four inches long, and separated half an inch.

The President asked how, with the method of suspension described, the magnets could be kept in a vertical plane when the ship rolled.

Dr. Joule said that he had no doubt that difficulty might be got over.

Mr. Lawrie said that if the suspending filaments were long, it would be impossible to keep them quite straight. There would be a sag upon them.

The following note is appended by Dr. J. P. Joule: "I find on trial, that a much smaller number of magnets than that I have given, is able to work a mercurial commutator. Fifteen 4-inch bars would be amply sufficient to overcome the adhesiveness of the mercury to the wires dipping into it when the deflection is one degree. A similar observation applies to the metallic commutator. Professor Thomson, however, has shown me a far more delicate mode than either of the above. In this plan a single bar magnet is suspended by a fine platinum wire. To one arm of the magnet a platinum wire is attached vertically. Two horizontal parallel fixed wires are placed on either side of the suspended one. Whenever either of the fixed wires is, by the motion of the ship, brought into contact with the wire carried by the magnet, a current passes to it from the suspending wire. This current excites an electro-magnet relay, by which another current is thrown upon an electro-magnet, powerful enough to work the valves of the steam cylinder. Experiments conducted in the Physical Laboratory of the University are quite conclusive as to the practicability of this plan, and demonstrate the possibility of directing a ship by the agency of a needle much less powerful than that of an ordinary compass."—*Mechanic's Magazine*.

THE RUSSIAN-AMERICAN TELEGRAPH.—The Cincinnati *Commercial* has the following letter descriptive of the telegraph expedition:

"The expedition is divided into three parties: 'The Upper Youkan River Exploring Party,' 'The Lower Youkan River Party,' and the 'Siberian Exploring Party.' The first is under the direction of Major Pope, and has already left for Vancouver's Island and Frazer River. It will number twenty-five men, and will explore all the country between the head of Frazer River and the mouth of Youkan River, wherever the mouth is. The second party, numbering ten men, is under the command of Mr. Kennicott, and will be landed in Norton's Sound, east of Behring's Straits, to ascend the Lower Youkan and meet Pope's party. The third party, to number about thirty, including the engineer corps, is commanded by Lieut.-Col. Hyde, and will probably land somewhere in the Gulf of Anadir, southwest of Behring's Straits. It is to explore the country from that point around Okhotsk Sea to the mouth of the Amoor River. It is with this party that I am going. The Colonel (Bulkley) will go up with us, but will not accompany us into the interior.

"Numerous side parties are to be detached from ours to thoroughly develop the whole country, so that when we settle down for the winter, next winter, our party will not exceed six or eight men, including Col. Hyde, Laborne, our interpreter, Robinson, Lewis, Belinge and myself.

"The whole expedition has a military organization, and all its officers are regularly commissioned by the Company. We all wear a uniform of dark blue, according to army regulations, with appropriate buttons, and shoulder-straps of our own. The Director-in-Chief's strap is a silver globe in the center, on a dark-blue velvet ground, with silver flashes of lightning darting toward either end; Lieutenant-Colonel, the same, except that half the globe is on each end of the strap, and the lightning converges toward the center; Major, the same of gold; Captain, a silver cable on a dark-blue ground, with a triple knot at each end of the strap and two strands across; First Lieutenant, ditto, with one strand across the strap; Second Lieutenant, ditto, without the strand. The uniforms are very handsome. The Colonel thinks best that the party be handsomely uniformed to sustain among the Russians the dignity of the United States and of the Collins Overland Telegraph.

"Our party will probably leave next week on the steamer George S. Wright, for Victoria Sitka and the Gulf of Anadir. Some of the party will, perhaps, go up on the bark Palmetto, which belongs to us, and which the Wright will tow. We now have a fleet of five vessels of our own—the steamer Wright, the small propeller Lizzie Horner, bark Clara Bell, schooner Milton Badger, and bark Palmetto. The fleet is to be under the command of Capt. C. M. Scammon, formerly of the steam cutter Shubrick, who will be chief naval officer of the expedition. Our party will probably spend next winter somewhere in the vicinity of Penjinsk Bay, on Okhotsk Sea, where we shall make ourselves as comfortable as possible. We have a selected library of nearly a hundred choice books, which will make the long, cold winter endurable. We have in the party two fine German and French scholars, and our interpreter, who speaks ten languages, including German, French, Spanish, Italian and Russian.

"Our party is in high favor with the Russian Government, and we expect to meet with distinguished consideration when we reach Nickolajefsk, at the mouth of the Amoor.

"The Russian Government sends a mail every two weeks from St. Petersburg to Nickolajefsk, at the mouth of the Amoor, and letters can be sent us that way. They will have to be addressed to the American Minister at St. Petersburg, who will forward them to us. This is the only possible chance for our getting letters within a year."

A PRESENTATION.

FREEPORT, Ill., August 24, 1865.

TO THE EDITOR OF THE TELEGRAPHER:

THE following correspondence explains itself. The testimonial consisted of a combined relay, sounder, and key—pocket size, manufactured at Caton's Instrument shops, Ottawa, Ill., and the most perfect instrument I ever saw. It was appropriately engraved, the whole costing \$30; instrument, \$25.

Mr. Miller lacks one *vital* and quite necessary requirement to be placed on a par with operators in general, and that is membership in the N. T. U. Otherwise he is O. K. and sound.

N. T. U.

FREEPORT, Ill., July 25th, 1865.

C. S. MILLER, Esq., Managing Operator of the I. C. R. R. Telegraph Line, Amboy to Dubuque:

SIR: The accompanying package we present to you as a token of respect and esteem for you as a man, and appreciation of your duties as Managing Operator on our Division. Your position being a *peculiar* one and well understood by us, we feel that *more* than usual credit is due to you, for the very gentlemanly and forbearing "rod of control" you extend over us. Your courteous manners and obliging acts at all times calls from us our highest encomiums and most heartfelt thanks.

The "little talker," when listened to by you in after years, will remind you of many pleasing and perhaps happy scenes, and while you are reminded of them, no doubt you will think of scenes of discord and strife among us. When you do so, remember we are only human, and that to err is human.

With many wishes for your success in life, and repeated thanks for past courtesies we are,

In bonds of fraternal friendship and love, yours,

J. S. SHANNON,	E. O. WAIT,
L. D. DOTY,	W. SCOTT BENSON,
M. DEAN,	THEO. CARRIGAN,
J. H. CRAIG,	W. T. KENDALL,
A. SMITH,	GEO. C. PARKINS,

JNO. WADSWORTH,
Operators North Division.

AMBOY, July 28, 1865.

OPERATORS North Division, I. C. R. R. Telegraph:

GENTLEMEN:—I accept this token of your respect with mingled feelings of pleasure and regret. Of pleasure, for 'tis an honest vanity that welcomes encouragement when every nerve is strained in the direction of duty, and of regret that I am so undeserving this remembrance at the hands of my co-laborers on the North Division.

This kindly message "breaks" in upon the "current" of my thoughts, and if I were permitted to use my full heart as a "key," words would occupy the "line" that unites us in one brotherhood, with no hope of a timely "check."

Believe me, I shall treasure this beautiful gift; and while it fulfills its mission, with every utterance of its brazen tongue shall come an echo of a name which helped to make up the list of valued friends. I shall go on with renewed efforts in the performance of arduous duties, cheered by the remembrance of your favor, and with the "little talker" ever near to "repeat" your words of kindly regard.

Again let me thank you for this testimonial, with the assurance that while we "fight it out upon this line" there will be no "sounder" prayer for your prosperity, than comes from the heart of

Your grateful friend,

C. S. MILLER.

[The above correspondence has been in our hands some time, but we have been unable before to find room for it, an acknowledgment we very much regret to be obliged to make.—ED.]

FROM the *Scientific American* we clip the following: "Platinum can be melted by the compound blow-pipe. If it is to be melted in large quantities it should be first heated white hot, together with a fire brick on which it is to be melted."

"Prof. Mapes tells us a good story of his journey to see it done. One day he called on Dr. Chilton and asked the Doctor if he had seen the account of a man in Philadelphia melting large quantities of platinum. The Doctor said he had.

"Well," said Prof. Mapes, "take your carpet-bag, and let us go on and see how it is done."

"They arrived in Philadelphia, and, calling upon the man, who was a watchmaker, asked him if he would show them how he melted platinum in such large masses. The man answered very politely that he would. Then putting a fire-brick into his muffle, he invited the gentlemen to take seats for a few minutes. When the brick was white hot he took it out, placed his platinum upon it, and directing the blaze of his blow-pipe upon the metal, soon saw it glisten and run.

"As the gentlemen came out of the shop Prof. Mapes remarked to Dr. Chilton:

"I say, Doctor, did you ever see two bigger fools than we are, to travel ninety miles to see a man heat a brick?"

"Platinum is so very refractory that when melted on a brick that is white hot it will chill and harden before it runs off the brick."

Correspondence.

TROY, N. Y., August 24, 1865.

TO THE EDITOR OF THE TELEGRAPHER:

I AM glad to see that among other things the subject of an improved Morse Alphabet is being ventilated in THE TELEGRAPHER.

All Morse operators have doubtless seen the disadvantages of using spaces and unequal dashes in our alphabet. Had our telegraphic forefathers foreseen the dangers and embarrassments incident to their use, they would have dispensed with them. But as they did not, the fraternity ought to rid themselves, if possible, of this source of so many errors and uncertainties. To accomplish this two plans may be considered.

First. To substitute new characters only where spaces or unequal dashes are now used; or, Second. An entire revision of the alphabet, selecting the shortest characters for letters used the most.

The accompanying alphabet is arranged after the first-mentioned plan, and has to recommend it, 1st. Its uniform dashes and no spaces; 2d. With the exception of the comma, which it is seldom necessary to use, no changes are made excepting where unequal dashes or spaces are now employed; 3d. Where new characters are substituted, the new are similar in appearance to the old, and begin with the same movement.

As each alphabet proposed should have some name by which it may be designated, I propose to call this the

AMERICAN MORSE ALPHABET.

A	—	J	—	S	...
B	—	K	—	T	—
C	—	L	—	U	—
D	—	M	—	V	—
E	—	N	—	W	—
F	—	O	—	X	—
G	—	P	—	Y	—
H	—	Q	—	Z	—
I	—	R	—	&	—
1	—	7	—	?	—
2	—	8	—	.	—
3	—	9	—	!	—
4	—	0	—	"	—
5	—	,	—	¶	—
6	—	—	—	—	—

The Collins Alphabet accords with the second plan mentioned above, but as "Theophile," in THE TELEGRAPHER for May, well says, "It remedies the imperfections of the common Morse Alphabet, but it has too many unnecessary alterations."

Does not "Theophile," in the "Union Morse Alphabet," fall into the same error he condemns in the "Collins?" The letters of the "Union" contain ten, the numerals three, and the punctuation points three alterations; total, 16.

The letters of the present Morse Alphabet contain seven characters, and the numerals one, composed in part of spaces or unequal dashes which, therefore, need to be changed. The fewer alterations in the present alphabet the better, and I therefore present to the telegraphic fraternity the American Morse Alphabet, which contains nine alterations.

The alphabet in THE TELEGRAPHER for March does not dispense with the unequal dashes, and therefore goes only half way in the reform movement.

SAW-BUCK.

TO THE EDITOR OF THE TELEGRAPHER:

PHILADELPHIA, September 3, 1865.

It was absolutely necessary that the founders of our Association should bestow much time and care on the legislation of a proper code of laws for our government, and as we grow in experience it must be expected that certain alterations will suggest themselves as appropriate and desirable. Still I cannot but deprecate this inordinate love for tinkering at our Constitution, which manifests itself as the ruling passion of our delegation. It must inevitably tend to endanger the stability and permanency of our institution.

Accepting the result of our Chicago Convention as the will of the majority, let us devote all our energies—at least for the ensuing year—to the proper execution of the laws we have, rather than to the creation of new ones.

No one will question the fact that there is much in our Constitution which remains in reality a dead-letter, for the want of its being carried into effect by the District officials.

There is another important matter to which I would like to draw the attention of your numerous readers, and which I consider as the greatest obstacle to our unanimity of action and more vigorous success generally. It is that spirit of lethargy prevailing among the most influential members of our Union. They profess to have our prosperity at heart, and yet we not unfrequently find it necessary to nominate four or five before we can induce one to accept a position. Let all such as these examine well into the obligations devolving upon them as members of this Association, and I challenge them to point out one clause which is at all calculated to compromise a faithful servant of any company.

On the contrary, they will find that our Union is based upon the truest principles of universal justice and practical benevolence.

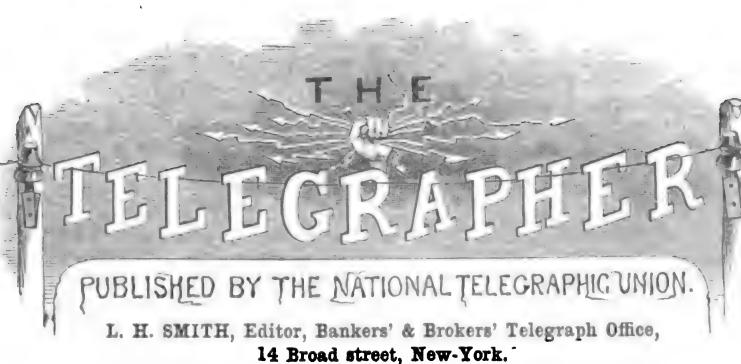
The companies cannot help participating in the benefits to be derived from the advancement of the moral and social position of their employés.

Neither can the wide diffusion of knowledge pertaining to our young and inexhaustable science of electricity be entrusted to better hands than those skilled by a long practical experience.

Why is it, then, that many will join us, and expect to reap the advantages, while they shrink from giving the Union that earnest and energetic support it so palpably deserves?

During my summer vacation I traveled more than twelve hundred miles, and stopped for a short time at several points where I was a perfect stranger. It was my good fortune to meet with a large number of members, whose kindness and hospitality fully impressed me with the conviction that the National Telegraphic Union is an *institution de facto*. Now, aside from any personal qualification, I consider this as one of the most cheering evidences of our complete success. Let the members feel that they are called upon, individually as well as collectively, to act with that fraternal spirit which should ever actuate members of a common brotherhood, and then will the good of our Association manifest itself wherever the electric current flashes.

Dow.



WEDNESDAY, NOVEMBER 15, 1865.

END OF VOL. I.

WITH this number the first volume of the first telegraphic newspaper ever published in this country is brought to a close. We know that this completion of the first book of THE TELEGRAPHER will gratify our many readers, whom we fear have grown weary with its prolonged existence. This prolongation has been caused by the following reasons: Beginning with eight pages per month, THE TELEGRAPHER has slowly and gradually risen to a semi-monthly issue of twelve pages. The paper upon which it is printed being of a fine quality, made but a thin book at the end of the twelfth number (152 pages.) The twelfth issue occurring at the end of August, which is the completion of one year's work, and the beginning of another, the time of all the year when we have the most to do, made it inexpedient as well as almost impossible for us, unaided as we are, to bring the volume to a close with the end of the fiscal and conventional year. It will be our endeavor, hereafter, to complete the volumes regularly either yearly, or every six months.

We are able to speak encouragingly of the prospects of the paper for the ensuing twelve months. Our advertising patrons come forward even more generously than they did fourteen months ago, and our subscription list is filling up equal to last year, with fair signs of a generous increase.

The circulation of this "organ," as some of the delegates were pleased to call it, is gradually but surely increasing in the Southern States, a part of the country which was during the first year of its existence shut out from the generous and benevolent smiles of its beaming face, which has always proved such a glad welcome to the fraternity all over the North, and to the farther side of the sea.

Our friends and patrons everywhere must not cease showing us two favors which are requisite and necessary for the existence of any paper, and these are, the sending of subscriptions and items of interest.

We shall continue improving the paper, and hope so soon as the present pressure of business is off our hands, to give our readers some original articles upon electricity and magnetism, as well as a vast amount of telegraphic history and statistics which have been kindly promised us.

Our readers will therefore be patient, and continue with an abiding faith in our good intentions. If we fail in our endeavors to make THE TELEGRAPHER interesting, it will not be from any indisposition on our part to make it so, nor from a lack of honesty of purpose. THE TELEGRAPHER is our pet, our life, and existence. Vol. I., exeunt.

• • •

WE are often applied to and besought by the best members of Districts in the large cities to give the members of their District "fits," or are asked to "pitch into our boys for non-attendance at meetings."

We believe in "pitching in" at the proper time, and when merited, and are convinced from experience that a little public castigation is salutary; but we have some doubts about a general reprimand proving beneficial. Could we particularize we might make the delinquents ashamed of themselves for once at least. Unless we can do this, we fear each delinquent will, like the sinner at church, turn around and say: "Ah, ha! Mr. —, now you are catching it, you sinner. I knew you deserved it. Give it to him, he needs it all; and more to." The whip is always needed for and merited by every one but ourselves.

TELEGRAPHIC MISCELLANEA.

AGAIN.—In our issue of October 16th, we attempted to correct the election returns of the New-York District, published in the September number, but in doing so, we blundered again. We attempted to say, and now say, that the name of the *Treasurer* elect, for the New-York District, should be F. P. Brown, and not Thomas P. Allen, as before stated.

TOYE'S CANADIAN REPEATER.—We neglected to state in our description of the above-named instrument, that it is the invention of Mr. Benjamin B. Toye, Manager of the Montreal Company's Toronto office.

A VACANCY.—There is a vacancy in the American Company's Boston office for a first-class operator. No other need apply.

RETURNED.—Mr. M. C. Laven has returned from his three months' tour in England and France.

AT SEA.—Mr. John E. Selden, whose emigration to New-Orleans was mentioned in these columns a short time since, is purser on the steamship Morning Star, running from this port to New-Orleans.

ANNUAL MEETING.—At the Annual Meeting of the Bankers' & Brokers' Company, held in Baltimore on Tuesday, the 7th inst., all the old officers were reelected, viz.: Wm. Callow, of Baltimore, President; Henry Janes, of Baltimore, Secretary and Treasurer; G. Hilton Scribner and Alfred Robinson, of New-York, H. L. Gaw and J. S. Newbould, of Philadelphia, and L. J. Tormey and Wm. Fisher, of Baltimore, Directors.

THE DELAY of the Proceedings of the Convention in reaching us, was not because they were not forwarded by Mr. Chandler, to whom the duty fell, but because the number of our office was left off the package. Mr. C. forwarded them as soon as they were handed him by the stenographer, and nearly three weeks before they reached us.

THE UNITED STATES COMPANY have removed their operating room from its eyrie, to the main floor of their office, at 117 Broadway, this city. A sensible change, to say the least.

THE BANKERS' & BROKERS' COMPANY has recently opened offices corner of Broadway and Barclay street, and 4 Hanover street, this city. This Company has two offices in Philadelphia, and four in Baltimore, and opened their lines to Washington on the 14th inst.

MR. J. D. REID, who was the very efficient Superintendent of the Western Union Company's lines from this city to Buffalo (formerly the New-York, Albany and Buffalo Company's lines), has resigned his position, and is at present engaged in restoring his health, which was very much impaired by his arduous labors during his many years' services as Superintendent. We would have made mention of this event much sooner, had we been promptly informed of the fact, as we ought to have been.

A meeting of the Board of Directors of the Company was recently held, at which the following resolutions were adopted:

"Whereas, the official relations of this Company with our late Division Superintendent, James D. Reid, Esquire, have been terminated by his resignation, therefore,

"Resolved, That, by his long experience and rare intelligence in practical and theoretical telegraphy, his unimpeachable integrity of character, his fidelity to every trust reposed in him, and his uniform courtesy and urbanity of manner, Mr. Reid is entitled to a high position among the telegraph men of this country.

"Resolved, That, wherever his future lot may be cast, or in whatever business he may engage, he will enjoy an undiminished confidence, and always carry with him our most cordial wishes for his health, prosperity and happiness."

SAN FRANCISCO, Oct. 26, 1865.

THE RUSSO-AMERICAN TELEGRAPH.—On the arrival of Colonel Bulkley and the Russian American telegraph party in the vicinity of Plover Bay, the Indians were extremely shy, and hesitated about coming on board. When they came on board, they reported that they had seen a steamer burning ships in the vicinity but a few days before, and some of the crews belonging to the ships had been sent ashore by the steamer. The Indians did not understand the burnings of these vessels, and therefore hesitated about coming on board.

Some two or three of the sailors set ashore by the Shenandoah, are reported to have been taken off by the telegraph party by a young man who returned by the Palmetto, though Colonel Bulkley does not mention the fact in his letters, and nothing is known of the present whereabouts of the pirate.

The *Alt. California* prints the following details in regard to the Russian American telegraph expedition:

The bark Palmetto, Captain Anderson, of the Russian American telegraphic expedition, arrived from Plover Bay, on the coast of Asia, on Sunday evening. By this arrival we have late news of the progress of the telegraphic expedition.

Colonel Bulkley and party arrived at Plover Bay in September, having sounded across Behrings Straits with the steamer George H. Wright. The bottom of the Straits was found quite as favorable as anticipated for the laying of the cable.

Colonel Bulkley reports that the river laid down on the map as the Knickapack, is identical with the Youkan, and is navigable for small steamers as far as English Fork.

Mr. Kennicutt, with the party sent to explore the Youkan to New-Westminster, British Columbia, was left at Fort St. Michaels. They will go up the Youkan and Knickapack in a small steamer, the Lizzie Horner, which is but thirty-five feet long.

They will proceed to the head of navigation, and then across, with reindeer or on foot, over the ice and snow, until they strike the settlements in British Columbia.

Colonel Bulkley's party found the earth on the American side thawed to an average depth of ten inches, but frozen solid below to an unknown depth, on their arrival in September. The country on the American shore was rolling and broken, but not high, and was destitute of timber. Granthy Harbor was found to be the best for landing the cable on the American side; it is a safe harbor, with good mud bottom.

From this point soundings were made across to the entrance of St. Lawrence Bay. The bottom was found to be very favorable for the laying of the telegraphic cable, as it is shallow, and exposed to the south-east gales. Machigne Bay was found full of ice. Pintman Bay was found to be a good harbor well suited for landing the cable.

The Asiatic coast was found entirely destitute of timber, and more mountainous than the American. The ground was found to be thawed to a depth of thirty inches and frozen solid below that.

When the Palmetto left, ice was forming constantly. The north-west wind was bitterly cold, and winter was fast approaching.

The bark Golden Gate, which was to return to this port next month, will be expected soon.

The steamer George S. Wright, with Colonel Bulkley, will return in November next. The schooner Milton Badger will also return here to winter.

The party found the Indians on both sides of the Straits, well disposed and capable of being made useful to the enterprise. Russian officials and private citizens, rendered every possible assistance to the party, and expressed the liveliest interest in the enterprise.

The scenery in many places visited was magnificent, and much that was strange and new was witnessed by the party. The floating ice coming through Behrings Straits was alive with walrus, who appeared to be taking a dead-head summer trip to the southwest.

Colonel Bulkley, in closing his official report to the officers of the Company, concludes as follows: "The telegraph can and will be built. Nothing in this highest latitude to prevent, nor are the difficulties so great as supposed."

SAN FRANCISCO, Saturday, Nov. 4, 1865.

A dispatch yesterday from Victoria states that the party constructing the telegraph wire toward the Russian Possessions were setting telegraph poles about 150 miles north of the mouth of Quesnelle River. They there struck dirt yielding from seventy-five cents to a dollar's worth of gold per panful.

The greater portion of the men working on the line had been discharged, and operations for the season partly suspended.

LATEST.—A buoy, supposed to be stationary, was passed in lat. 42°, long. 40°, and is thought to be one of the Atlantic telegraph buoys.

CHANGES.—Mr. Mumford, late Telegraph Operator at the railroad depot at Lyons, N. Y., has been placed in charge of the Ticket Office, and Mr. A. W. Johnson, of Ithaca, has been appointed Operator in his place.

Mr. H. P. Royce, formerly of the American Company's Wilmington (Del.) Office, and recently of the Western Union Company's Pittsburg Office, now has charge of the Bankers' and Brokers' Company's Office, corner of Broadway and Barclay street, this city.

MR. A. H. REESE, formerly of Ill. and Miss. lines at Springfield, Ill., has taken a position with the W. U. Company's Detroit office.

We find the following in the "PERSONAL" column of *The Herald*.

JONAS J. HUBBELL, WHO WAS A SHORT WHILE AGO IN THE EMPLOY OF THE AMERICAN TELEGRAPH COMPANY, will hear something to his advantage by sending his address to D. H. C., Madison Square Post-Office, New-York. Any of his friends seeing this will please give the information requested.

WE ARE INCREDULOUS, but still publish the following as an item of news:

"SINGULAR ELECTRICAL PHENOMENON.—We are told that about the middle of the eclipse yesterday the telegraph wires suddenly ceased to work, and for forty-five minutes not a sound could be got over them, the continuity having entirely ceased. At the end of that time the wires commenced fulfilling their mission again, and continued all right during the day."—*Lafayette (Ind.) Journal*, Oct. 20.

LAKE TATLA, Oct. 5, via QUESNELLE, Nov. 8, 1865.

TO THE AGENT OF THE ASSOCIATED PRESS:

LOSS OF A MAIL FOR THE COLLINS OVERLAND TELEGRAPH EXPEDITION.—Please make the announcement that a large mail for the telegraphic exploring party under my command, which had been accumulating in San Francisco for several weeks, was lost in the wreck of the steamer Brother Jonathan.

F. L. POPE,
Assistant Engineer Collins Overland Telegraph.

QUOTATIONS OF TELEGRAPH STOCK.

Western Union,	\$100 shares	70	Russian Extension, . . . \$100 shares	30
American,	"	125	United States,	58

L. G. TILLOTSON,

MANUFACTURERS AND DEALERS IN

TELEGRAPH MACHINERY AND SUPPLIES

OF EVERY DESCRIPTION.

No. 26 DEY STREET, NEW-YORK.

The undersigned (late of Tillotson & Co.), having completed arrangements for the resumption of the above business, solicits the patronage of his old friends and customers, who may feel assured of the prompt execution of any orders with which they may favor him. Our catalogue embraces every article required in the construction and operation of Telegraph lines.

L. G. TILLOTSON.

DISTRICT DIRECTORS.

NEW-YORK.—W. Steinhoff, United States Telegraph Office.	
BOSTON.—H. W. Wheeler, American	" "
PHILADELPHIA.—Jos. S. Greene, W. U.	" "
BALTIMORE.—J. B. Yeakle, American	" "
WASHINGTON.—T. H. Sherman, American	" "
ST. LOUIS.—W. Stoneback, W. U.	" "
CHICAGO.—A. H. Bliss, W. U.	" "
LOUISVILLE.—W. DeGrove, W. U.	" "
NASHVILLE.—D. O. Dyer, U. S. Mil.	" "
DETROIT.—T. W. Priest, W. U.	" "
MAINE.—C. I. Collamore, American	" "
ALBANY.—A. L. Whipple, N. Y. C. R. R.	" "
UTICA.—J. B. Sabine, W. U.	" "
ROCHESTER.—J. H. Crane, W. U.	" "
CALIFORNIA.—M. Hodge.	" "
NEW-JERSEY.—J. A. Wright, American	" "
PITTSBURG.—Geo. A. Hamilton,	" "
HARRISBURG.—J. B. Lyndall, W. U.	" "
CINCINNATI.—B. B. Glass, W. U.	" "
ST. JOSEPH.—W. H. Woodring,	" "
OMAHA.—Frank Lechner,	" "
INDIANAPOLIS.—G. W. Babbitt, Bellefontaine Railway Telegraph Office.	

Memphis, Tenn.

Bangor.

Carson City, Nev.
Trenton.

DISTRICT PROCEEDINGS.

CHICAGO DISTRICT.—Adjourned meeting was held October 11th, Director presiding, Mr. Chandler acting as Secretary *pro tem.* Minutes of the last meeting were approved. District Treasurer's report accepted. Letters were read from Messrs. Sweet and Bliss, expressing their regrets at being unable to attend the banquet recently given the delegates to the late Convention by this District; also from the Louisville and Detroit Districts, returning thanks for courtesies shown their delegates.

Mr. C. E. Crandall, having left telegraphing, was granted an honorable withdrawal from the Union.

Messrs. W. H. Walker and W. D. S. Anderson, Chicago; S. J. Mills, Clinton, Iowa; Samuel Simonton, Bloomington; A. G. Currier, Rockford; Stanley Church, Cedar Rapids, were elected members.

The Director announced Mr. C. D. Thomas transferred to the Cincinnati District, and Mr. M. A. Huyck transferred from the Washington to this District. He also announced Messrs. York and Matlock as his counsel for the ensuing year.

The report of the Banquet Committee was read and accepted, and the thanks of the District were tendered to the committee for the satisfactory manner in which they discharged the duties imposed upon them. Adjourned.

CINCINNATI DISTRICT.—Regular meeting held Sept. 25th, Director in the chair. The following-named persons were elected members: E. Squires, of Carlisle, O.; G. W. Griswold, of Hamilton, O.; F. D. Gibbons, Xenia, O.; W. Hunsaker, Hamilton, O.; W. H. Cody, W. M. Smith, H. D. Lockwood, J. H. Pearce, L. Brooke, A. Haight, J. C. Mattoon, E. L. Ryder and Geo. Golden, of Cincinnati.

The Committee on By-Laws reported progress, and asked to be continued until next meeting. Request granted. Adjourned.

Regular meeting Oct. 15th, Director in the chair. Minutes of last meeting approved. Mr. F. H. Green, W. U. Office, elected a member.

Committee on By-Laws reported the code as adopted by the N. Y. District, which, with some alterations on local matters, were adopted.

Messrs. W. W. Smith, C. D. Thomas, and E. L. Ryder were appointed a committee to secure room for the meetings of this District, to report at a special meeting to be called for the purpose. On motion, the Director was added to the committee. On motion, the committee was empowered to take the views of the operators of Cincinnati as to the propriety of establishing a telegraphic club and reading-room.

Mr. J. H. Warren was transferred to the Louisville District. Adjourned.

BALTIMORE DISTRICT.—Special meeting called to order at 8 P. M., Oct. 30th, fourteen members present.

Communication from Mr. Riley read, objecting to using the room on Fayette street for District meetings. After some remarks on the subject by the Director, and a spirited discussion by Messrs. Riley, Ways, and Williams, it was resolved that Mr. Clowdsley's offer of the room be rejected, and a vote of thanks be tendered him for his kindness.

On motion, the committee was further instructed to procure and fit up a suitable room on reasonable terms as possible. Adjourned.

Regular meeting called to order at 8 P. M., 5th inst.

Minutes of the last two meetings approved.

The Director urged the necessity of promptness in payment of dues.

Mr. J. F. Morrison was elected a member.

After considerable discussion an assessment of two dollars per member was imposed for local expenses.

Messrs. Williams and Vernetson were appointed on Room Committee, increasing it to five.

THE TELEGRAPHER.

Letter read from chairman of Executive Committee approving action of District in expelling A. A. Braidwood.

Mr. Riley gave notice that at next meeting he will offer resolution to change time of meeting from Sunday to some other day.

On motion, it was ordered that hereafter all dues and fines be paid monthly.

On motion, the Director was requested to correspond with Prof. Henry, or other scientific gentlemen, to ascertain upon what terms a lecture can be given before this District. Adjourned.

INDIANAPOLIS DISTRICT.—On August 2d, 1865, eighteen operators of Indianapolis assembled at the Union Depot, in that city, for the purpose of organizing a District of the Union. Meeting was opened by calling Mr. R. G. Worth to the chair, Mr. A. H. Bauer acting as Secretary. Remarks were made by several gentlemen present, setting forth the advantages to be derived from such an association by operators, both individually and as a class, which were concurred in by all present. Pledges of the Union were signed by all present. On vote being taken for officers, Mr. C. W. McReynolds was elected District Director; Mr. R. G. Worth, Local Director; A. H. Bauer, Secretary, and Jno. E. Zeublin, Treasurer. After some remarks by Mr. McReynolds, on motion of Mr. Worth, meeting adjourned to meet on the 24th of August.

Second meeting of this District, held at Bellefontaine Railroad Office, 9 P. M., August 24th, the Director in the chair.

Minutes of last meeting approved.

Mr. Bauer, in behalf of the District, tendered Mr. G. W. Babbitt resolution of thanks for use of his office, also for his kindness in presenting the District a book for the use of Secretary.

The following-named gentlemen were elected members: M. H. Goe, D. J. Dingman, J. W. Smith, J. Kimball, G. W. Tong.

On vote being taken for delegate to the Convention at Chicago, Mr. Jno. E. Zeublin was declared elected by a vote of nine to four.

The Director appointed a committee of three to examine the qualifications of those proposed for membership; also a committee of two to furnish room for use of District. Adjourned.

Third meeting, Aug. 30. No quorum being present, no meeting held. The Director appointed Wednesday evening, Sept. 6th, for next meeting.

Fourth meeting, Bellefontaine Railroad Office, Sept. 6, 9th P. M. Meeting called to order by Mr. Worth.

Minutes of the last meeting approved.

The following-named gentlemen elected members: E. S. Myers, Urbana, O.; H. J. Nichols, Eaton, O.; G. W. Smith, Columbus, Ind.; J. R. Woodfield, Franklin, Ind.; C. C. Williamson, Winchester, Ind.; J. N. Hoover, Union, Ind.; W. R. Moore, Smithfield, Ind.

On reading of the New-York District By-Laws they were unanimously adopted entire, making the monthly fee of the District fifty cents.

The Director dissolved the Committee on Room till further notice. Adjourned.

The Telegrapher:

PUBLISHED BY THE

NATIONAL TELEGRAPHIC UNION.

THE UNION is an association of telegraph operators, for their own mutual benefit and support, and THE TELEGRAPHER is published to disseminate information among its members, as well as general telegraphic news.

THE TELEGRAPHER is published in New-York, on the first and fifteenth of every month, and besides matters of associate interest, is devoted to the interests of telegraphers all over the world, and will contain telegraphic information from all parts of the globe.

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No notice will be taken of anonymous communications: the name and address of the writer must always accompany each article or communication.

Correspondents sending articles for insertion must write briefly, and on but one page of each half sheet of paper. We can not return rejected articles.

DISTRICT BY-LAWS.

The N. Y. DISTRICT have 1000 copies of DISTRICT BY-LAWS printed in pamphlet form, with blank spaces for filling in time, dates, and amounts. Price, \$3.50 per 100. These By-Laws were printed upon the assurance of several Districts of their desire to purchase.

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SUPPLEMENT

TO

THE TELEGRAPHER.

New-York, Monday, November 6, 1865.

JOURNAL OF PROCEEDINGS OF THE *Second Convention* OF THE NATIONAL TELEGRAPHIC UNION, HELD AT CHICAGO, ILLINOIS.

MONDAY, Sept. 4.—Convention adjourned, a quorum not being present.

TUESDAY, Sept. 5.—Convention adjourned, a quorum not being present.

WEDNESDAY, Sept. 6.—Convention adjourned, a quorum not being present.

THURSDAY, Sept. 7.—Convention adjourned, a quorum not being present.

FRIDAY, Sept. 8.—Convention adjourned, a quorum not being present.

SATURDAY, Sept. 9.—Convention adjourned, a quorum not being present.

MONDAY, Sept. 11.

The Convention was called to order by C. W. Hammond, President, at three o'clock P.M.

On motion, J. H. Vestal, of Louisville, was elected to act for the Recording Secretary, *pro tem.*

In pursuance with the By-Laws, Clause 1, of Order of Business, the President appointed, as a Committee on Credentials, J. H. Flanagan, of Louisville, A. L. Whipple, of Albany, and T. W. Priest, of Detroit.

And the Committee reported the following persons entitled to seats, and present, namely:

H. C. Robinson, of Philadelphia, and proxy for Thomas L. Flattery; John A. Wright, of New-Jersey; M. H. Redding, John B. Oltman, and Joseph L. Edwards, of New-York; H. W. Wheeler and J. W. Stover, of Boston; A. L. Whipple and S. C. Rice, of Albany; T. W. Priest, of Detroit; E. B. Chandler, Geo. C. York, A. H. Bliss, and A. D. Dibble, of Chicago; A. H. Seymour and M. D. Crain, of St. Louis; J. H. Flanagan and J. H. Vestal, of Louisville; Kenneth McKenzie, of California; Charles A. Paxson, of Omaha: which report was accepted.

The Secretary read the journal of the proceedings first Convention of the N. T. U., held in Philadelphia, Pa., Monday, September fifth, 1864, which was approved.

The President read his annual report, as follows:

"PRESIDENT'S OFFICE, N. T. U.,
"GENTLEMEN OF THE CONVENTION : St. Louis, Mo., August, 1865. }

"In compliance with the requirements of Article IV., Section 1, Clause 1 of the Constitution, I respectfully submit this my Report for the year ending with my official term.

"The Convention which met at Philadelphia one year ago was, as a distinguished member of the Union well said, 'the pivotal point upon which our Union was to turn.'

"Although composed of but twenty-five or thirty delegates, they represented telegraphers in all parts of the Union, excepting, perhaps, the Pacific States; and it soon became evident that the various Districts had chosen their best men—none who had been tried and found wanting. Indeed, they brought with them so intelligent an appreciation of the difficulties which surrounded them, and so clear a knowledge of the proper remedy to be applied; such an utter absence of personal or local prejudice and anxiety to avoid giving offense; so evident a willingness to surrender all personal or local interest for the general good, that alone enabled them to bring the exciting questions before them to a satisfactory settlement.

"Hoping that this Convention will emulate the example of the last, and that no time

will be unnecessarily consumed, detaining us from our business, (which can ill afford to dispense with the services of so many of its best men, even for a short time,) I will, as briefly as possible, proceed to recommend such legislation as to me seems necessary and proper.

"Clause 2, Section 1, Article III. of the Constitution requires the election of general officers of the Union to take place on the first Monday of September—the day the Convention assembles.

"I would earnestly recommend that this clause be so amended, as to require the election to take place immediately before the adjournment of the Convention; and to this end I would suggest that, after the reports of committees have been made, the rules be suspended, and the Constitution so amended.

"As the newly-elected officers do not commence the discharge of their duties until after the final adjournment of the Convention, there can be no necessity for haste in the elections, while there are many grave objections, among which are the following: At so early a stage in the proceedings of the Convention, it necessarily follows that very few of the delegates are informed as to the qualifications of the different candidates, and must, therefore, either vote blindly or occupy too much of the time of the Convention, in discussion which is apt to engender ill-feeling; whereas, during the recesses of the meetings, members can talk over the requirements of the positions, the qualifications and talents of the delegates, and thus be enabled to vote understandingly.

"In order to insure prompt attention to official duties, I would recommend that District Secretaries and District Treasurers be recognized as District Officers of the Union, and that Clause 3, Article I., be amended accordingly. Also, that two clauses be added to Article IV., embodying the substance of Clauses 2 and 3, Article II., of the District By-Laws, with such other amendments as will make plain the duties of those officers.

"In order to reduce the expenses of our Convention, I would recommend that Clause 4, Section 1, Article II., be amended to limit the number of delegates to one for every forty members, and one extra delegate when the exact proportion shall be fifteen members in excess.

"I would also recommend that Article IV., Section 1, Clause 1, be amended so as to admit of the President's resignation being submitted to the several members of the Convention, in writing or by telegraph, as in the case of other general officers. Should the President find it impossible to attend to the duties of his office, or should he leave the telegraph business, it would not, in my judgment, be good policy to subject the Association to the great expense of calling a special session of the Convention.

"I would also advise that Clause 5 of Article IX. be so amended as to permit members leaving telegraphing to continue their membership in the usual way, should they so desire.

"Sections 1 and 2 of Article XI. have thus far been a dead letter. Applications have been made to the Corresponding Secretary for operators, but from the great scarcity during the last year, he has been unable to fill any vacancies.

"Article XII. should be so amended as to make it the duty of the District Director to appoint a committee to investigate the qualifications of members of their respective Districts.

"It is obviously impossible for the Executive Committee to attend to that duty.

"I think that a clause in our Constitution providing for honorary membership, would be productive of great good. It would be the means of adding to our numbers many of the oldest and best telegraphers in the country, and of securing to our Association the benefit of their experience and support.

"I would recommend that that part of Clause 2, Section 1, Article V., of the By-Laws, which provides a compensation for the Corresponding Secretary, be stricken out.

"At our last Convention an ordinance, known as 'the Review Bill,' was adopted, providing for the publication of THE TELEGRAPHER, and Mr. Lewis H. Smith appointed Editor.

"At that time the premium on gold ranged from one hundred and fifty to one hundred and seventy-five per cent. Labor, paper, ink, and every thing necessary to the publication of such a journal, were held at enormously high figures, making the attempt to establish a newspaper, at such a time of national distress, a truly herculean one.

"By dint of patience and hard labor, (performed during the very short respite from labor which is allowed to an operator in a 'main' telegraph-office,) Mr. Smith was enabled to issue, on the twenty-sixth of September last, the first number of a paper which, for

THE TELEGRAPHER SUPPLEMENT.

neatness of appearance, ability of its editorials, and taste in selections from other journals, has ever since been a source of pride and admiration to the whole telegraphic fraternity.

"Since issuing the first number, the Editor has enlarged the paper and made many improvements. It is my opinion that the telegraphic fraternity are both able and willing to support a still larger journal. Whether it shall be a monthly, in the form of a magazine, a semi-monthly or weekly of the present monthly form, or whether the present monthly publication shall be continued, is for your body to determine. To that end I would recommend the appointment of a committee, with instructions to report at an early hour during the session of this Convention.

"The late Convention made no provisions for the payment of the Editor of THE TELEGRAPHER for his services.

"At the time of the passage of the Ordinance, the success of the paper was considered very doubtful. Indeed, fears were entertained that it would be a great expense to the Union. It was under these circumstances that the present Editor tendered his services as 'a free-will offering to the Union and profession.' But as the paper has been a source of considerable revenue and of incalculable benefit to the Union, I deem it no more than an act of justice to a man who has labored long and faithfully in our behalf, to make him some slight return for his labors.

"I would therefore recommend that the sum of two hundred dollars be appropriated, and the Treasurer directed to pay the same to Mr. Smith.

"Also, that the offices of Treasurer and Editor of THE TELEGRAPHER be consolidated, and a reasonable salary provided for that officer.

"In making this latter recommendation, I much regret the fact that, if favorably received by your body, it will probably have the effect of dispensing with the services of our present able and efficient Treasurer, who has been an active member of our Union from the beginning. But I well know that the salary would have no weight in influencing his decision, were he convinced, as I am, that a change could be made to the advantage of the Union. Nor will the loss of this salary make him a less active or useful member of the Union. THE TELEGRAPHER, as it will probably be ordered published by the Convention, will demand at least one half of the time of its Editor.

"In order to enable him to arrange with his employers for half-time, the Union must pay him a sum equivalent (or nearly so) to half his pay as operator. As this will be a considerable sum, I consider it advisable to have the Editor of THE TELEGRAPHER perform the duties of Treasurer and General Supply Agent, so that there need be but one salaried officer in the Union.

"From the Treasurer's Report I learn that we now number about eight hundred members, comprising twenty-one Districts; that he has, to the credit of the Union, about twenty-four hundred dollars, in cash and Government stocks, and that he has paid out about five hundred dollars for sick-dues and funeral expenses of deceased members, of which sum about one hundred and fifty dollars were due from the previous year.

"One year ago the Treasurer's Report showed but two hundred and fifty members, and three hundred and ninety-three dollars and twenty-seven cents in the treasury.

"This shows a most gratifying prosperity, and demonstrates our ability to pay the present allowance for sick-dues.

Gratifying as has been our progress in the past, I firmly believe that it will be much more rapid in the future. Unfortunately, a misconception of the objects of our Association has prevented many of the oldest and ablest of our profession from joining us and assuming the lead for which their talents eminently fitted them. Some having wives and little ones depending upon them for support, have held aloof, fearing that we might prefer a temporary to a permanent advantage, while others, (and they were more numerous than I could have wished,) lacking the moral courage to espouse the cause of a minority, and doubting their own ability to build up, set vigorously to work pulling down, and placing every obstacle possible in our way.

"But already a marked change can be seen. Many who at first, when our Association was mentioned, were nearly certain to make some sneering remark, have already joined or made application to join us, while the others remain silent.

"It is much to be regretted that ex-President Smith (whose good name was a tower of strength to our cause) could not be induced to accept of a re-election. It would have been a guarantee that our affairs, so far as the Executive was concerned, would have been conducted wisely, and would have contributed greatly to our prosperity.

"I wish to express my thankfulness to Vice-President Young, Treasurer Partrick, the Recording Secretary, Mr. Upham, Corresponding Secretary McKenzie, and Mr. Smith, editor of THE TELEGRAPHER, for their prompt and hearty co-operation and valuable suggestions. Indeed, I have received so much kindness and good advice from these gentlemen, that when I receive the praise which is always accorded to the head of a successful association, I feel that I am appropriating honors which justly belong to others.

"Very respectfully yours, C. W. HAMMOND, President."

On motion of Mr. Flanagan, of Louisville, the Report was accepted, and ordered to be placed on file.

And on motion of Mr. Stover, of Boston, the subject-matter of the Report was referred to a select committee.

And on motion of Mr. Chandler, of Chicago, it was ordered that the Committee consist of seven delegates.

The Annual Report of the Treasurer was then read. (See Table head of next column.)

And on motion of Mr. CRAIN, of St. Louis, the same was accepted and ordered to be placed on file.

The report of the Corresponding Secretary was then read, as follows:

OFFICE CORRESPONDING SECRETARY NATIONAL TELEGRAPHIC UNION,
St. Louis, August 26, 1865.

C. W. Hammond, President N. T. U.

SIR: At the Convention, held at Philadelphia, in September, 1864, a number of resolutions were passed, and the Corresponding Secretary ordered to send them to the parties to whom they were addressed; all of which was attended to with as much dispatch as possible.

The correspondence during the past year has been very pleasant throughout, and I hope resulted to the benefit of the Union.

The progress of the N. T. U., so far as I have been able to learn, is quite extensive; and if the same good luck attend it (which I have no reason to doubt) for another year, we will have nearly all, if not every operator that is eligible in the country, enrolled under its banner.

There are changes in the Constitution and By-Laws, which I think ought to be made

PHILADELPHIA, August 30th, 1865.
C. W. HAMMOND, Esq., President of THE NATIONAL TELEGRAPHIC UNION, for the year

Dr.	EXPENDITURE.
	By Amount paid out for Sickness and Deaths, \$461 76
	By Amount paid printing Certificates, etc., 379 90
	By Amount paid Delegates at last Convention, 299 30
	By Amount paid Incidental Expenses and premium for Government Bonds, 81 34
	By Amount paid Salaries of Treasurer and Cor. Secretary, 260 00
	By Amount invested in Government Securities, 1600 00
	By Balance on hand, Cash, 759 06
	\$3821 35
1865.	RECEIPT.
To Balance in Treasury, August 1st, 1864, \$393 27	To Amount received for Initiation Fees, Dues, and Certificates, \$3164 04
To Amount derived from publication of the first seven Nos. of THE TELEGRAPHER, 239 38	To six months' Interest on \$600 Government Securities, 24 66
Total, \$3821 35	Total, \$3821 35

During the past year there have been added to the Union 602 members, making a total membership of 849. Of this number, 83 have been expelled for non-payment of dues and other causes, 16 have resigned, and 1 died, leaving a total membership, to date of Report, of 800 members. Of this number, 807 are in good standing, and the balance, 143, I am sorry to say, are over six months in arrears. The amount of outstanding dues, (to date of Report,) August 1st, 1865, are, \$1600 32. Collected from the different Districts since that time, 238 60

Leaving a balance of outstanding dues to August 1st, 1865, of,

I have received during the past year 955 certificates of membership, amounting to,

And have distributed to the Districts, 884, amounting to,

Leaving a balance of 121 certificates yet on hand, amounting to,

80 25

Of the number of certificates of membership, 884 distributed, amounting to,

607 have been paid for by the Districts, amounting to,

208 50

Leaving a balance yet due from the Districts for certificates of memberships of,

56 75

Hoping the above Report will meet with your entire satisfaction, as well as all concerned, I remain yours respectfully, JAMES PARTRICK; President Nat. Tel. Union. Report approved, HENRY C. ROBINSON, Auditing Committee. JOHN A. WRIGHT, John A. Wright, Corresponding Secretary.

at the next meeting of the Convention, soon to be held at Chicago. But in this report I will confine myself entirely to that portion of it which defines the duties of the Corresponding Secretary.

Clause 5, Section 1, Article IV. of the Constitution, I think, requires no material change.

Clauses 1 and 3, Section 1, Article XI., so far has been almost a dead letter. It is impossible for the Corresponding Secretary to do much in the matter without the cordial support of all the District Directors.

I would recommend it be made the duty of the District Directors, instead of the Corresponding Secretary, to attend to the matter referred to, in the article quoted.

The District Director is expected to be somewhat acquainted with the operators in his District, and when a vacancy occurs or is about to occur, he can communicate directly with all the District Directors, and get their replies in far less time than to communicate first to the Corresponding Secretary, and he to the different District Directors. Such a plan would, I am confident, work to better advantage than as it now stands.

All of which is most respectfully submitted.

KENNETH MCKENZIE,
Corresponding Secretary.

And on motion of Mr. STOVER, of Boston, the report was referred to the special committee, to be appointed to take into consideration the President's report.

On motion of Mr. FLANAGAN, the election of general officers was fixed for the last day of the sessions of the Convention, to be made the special order previous to adjournment.

On motion of Mr. PARTRICK, the Convention then adjourned until ten o'clock, Tuesday morning next.

TUESDAY, September 12, 1865.

The Convention met, pursuant to adjournment.

The President in the Chair.

MR. SKYRME, of St. Louis.—I move that Mr. James Partrick be admitted to a seat upon the floor as the third delegate from the District of St. Louis.

Which motion prevailed.

MR. PARTRICK.—By the voice of this Convention, I believe, I have been appointed or elected a delegate from St. Louis, and as it is necessary to have credentials, to show to the Committee on Credentials, and I have none, I hope some action will be had to enable them to recognize me. I should like to know something about this, as the Committee has applied to me concerning it.

THE PRESIDENT.—I understood it to be the resolution of this Convention, to allow

the gentleman to act as the proxy of Mr. W. Stoneback, of St. Louis, who is unable to attend in this Convention. Usually delegations may be filled by the members of the delegation, but in this instance, upon the recommendation of the delegates, the Convention has acted.

MR. PARTRICK.—The Committee on Credentials are expected to know nothing about the matter, as they were absent from the room when the Convention acted. They have since come to me for my credentials, and I have none to give. I think, then, it is necessary that they should be informed by some authoritative act of what has occurred.

MR. CRAIN, of St. Louis.—I move that the Secretary be instructed to notify the Committee of the action of the Convention.

MR. OLTMAN, of New-York.—I would suggest that Mr. Stover be sent after that Committee.

MR. STOVER, of Boston.—It is usual for the mover of a committee to be upon the committee, and I suggest that the rule be not departed from in this instance, and that the gentleman himself acts.

THE PRESIDENT.—I don't know as it is necessary to wait for that committee. We have a quorum, and I think it would be competent for the Secretary to read the report of the Editor of THE TELEGRAPHER.

MR. PARTRICK.—According to that, the delegates that have come in this morning, would have no right to act while this committee is absent.

THE PRESIDENT.—They will be in within an hour, I suppose.

MR. PARTRICK.—But supposing there should be some action during their absence?

MR. STOVER, of Boston.—I hope that report will not be read at any rate. I know of one member of the committee that is very desirous of hearing that report, and I suppose we all are.

MR. FLANAGAN, from the Committee on Credentials, made a further report as follows:

CHICAGO, September 12, 1865.

Committee on Credentials report favorably to the admission of the following additional delegates:

F. G. Beach, represented by proxy, J. B. Oltman, of New-York; William P. Merrill, of Maine; W. H. H. Clarke, W. H. Young, G. D. Thurston, of Washington; A. D. Dibble, represented by proxy, Geo. Makle, of Chicago; M. H. Markle, of Pittsburgh; A. Wilson, Jr., J. B. Yeakle, of Baltimore; W. H. Kelty, represented by proxy, J. B. Yeakle, of Baltimore; J. E. Zeublin, of Indianapolis. Mr. Stoneback, of St. Louis, represented by proxy, James Partrick.

J. J. FLANAGAN,
H. W. WHEELER,
T. W. PRIEST, Committee.

I will add, Mr. President, that Mr. Robinson was represented as being entitled to two votes. On an examination of his papers, we find that he is entitled to but one vote, yet he claims that as alternate he is entitled to the vote for whom he is proxy. We desire the Chair to decide whether Mr. Robinson shall be entitled to two votes or one vote.

MR. ROBINSON, of Philadelphia.—I would state that the wording of my credentials is an error on the part of the District Secretary. I don't think, according to the rule, I am even an alternate, from the fact that both delegates resigned in my favor. I believe Mr. Partrick, the Treasurer of the Union, was the means of my being elected, or my name being brought before the local meeting, and I think he knows that it is the intention of the District that I should cast its two votes. This matter could be easily settled by telegraph.

MR. PARTRICK.—I plead guilty to the soft impeachment. I desire to say that I believe there were two delegates elected to this Convention: one was Mr. Flattery. Mr. Robinson has a proxy from Mr. Flattery, but if he can show any authority from the other delegate to this Convention, I cave, but till this be done, I insist the Convention can not give him two votes.

MR. ROBINSON.—Mr. Partrick is aware that I was elected, and that my name was brought up because of the resignation of a delegate.

MR. PARTRICK.—If that is the case, the gentleman's paper would read delegate, not alternate delegate, because he would be a regular delegate.

MR. ROBINSON.—I will further state that I was not aware that I was to come here, or that my name had been considered by the local or District meeting until Monday previous to my leaving, and that the credentials were got up in a hurry, and I left, in fact, with no instructions, except those that were verbal, and Mr. Porter, our District Secretary, has certainly made a mistake. I don't think it was the intention of the District Director to have my credentials read "alternate." As I understand it, I am not an alternate, but a delegate, but I can't get over what is written.

MR. STOVER, of Boston.—In order to bring the matter properly before the Convention, I move that he be entitled to two votes.

MR. PARTRICK.—I would like to know by what authority the gentleman makes that motion!

MR. STOVER.—Upon the authority of being a member of the Convention.

MR. PARTRICK.—I want to be heard on that. I am not ready for the question. I would like to know by what right this Convention will give Mr. Robinson the right to cast two votes, when he has not the papers to show that the regular delegate is away, or that he has authorized him to act. If he can show any authority from him to cast his vote, I am ready to let him do it, otherwise I will not do it.

MR. ROBINSON.—I will have to confess the absence of any article to show Mr. Black has resigned, but if the gentlemen here have confidence enough in me, I will assure them that he did resign, and that the result was my election. I have stated in Philadelphia there was but one regular delegate, that Mr. Flattery and his alternate could not go, so that on Mr. Black's resignation, I was elected in his place, and, as I said before, the word alternate appears by mistake. It is certainly a mistake of Mr. Porter's; it was not intended to be there.

MR. STOVER.—Was it understood that he was to represent the District of Philadelphia by two votes?

MR. ROBINSON.—That was the intention.

MR. PARTRICK.—I suppose it was intended that he should represent two votes, but as he has not the necessary papers, I contend he has no authority to vote. I am in for right-handed justice, and I say that it is not justice to the Convention to confer these votes. If we do this, why not take the delegations that are not represented here at all, and give the power to vote for them to some member who is present?

MR. STOVER.—I believe any person here who comes as a delegate, who makes the statement that it was the wish of his District that he should represent his District fully, should be taken at his word. I am willing to take it; and I don't believe it is neces-

sary that we should be so strict that we will not admit a person to the Convention as a delegate, when we are morally certain that it is the wish of his District that he should represent them by one or two votes. I don't think we should stand so firmly upon matters of form, that we should, under such circumstances, insist upon his having credentials. If we are not willing to take his word, I can't see how we can justify giving to the gentleman who last spoke, the right to vote where he has no credentials of any kind to show, that he is a delegate for any District. I am perfectly willing that the gentleman shall represent St. Louis District, because I believe him when he stated it is the request of that District he should represent them. I believe this gentleman also; and as he has not the time to procure the necessary papers, I go for allowing his District to be properly represented by him, and fully represented.

MR. PARTRICK.—I will allow there was a decision of the Convention in my case, but I believe it is my duty to bring this matter before the Convention, and if the delegates choose to allow him to cast two votes, I can't say nay.

MR. FLANAGAN, of Louisville.—I think the best way will be, to allow him one vote, until he can produce credentials which shall be satisfactory. These can be procured by telegraph.

MR. STOVER.—Do you propose to take the back track? You report Mr. Partrick as entitled to a vote.

MR. FLANAGAN.—I have the certificate of the President, as follows:

"N. T. U. CONVENTION, CHICAGO, Sept. 2.

"Mr. Seymour, of St. Louis, requested that Mr. Partrick, of Philadelphia, be admitted as proxy for Mr. Stoneback, of St. Louis District. Mr. Partrick was admitted by an unanimous vote.

C. W. HAMMOND, President.

J. H. VESTAL, *Secretary, pro tem.*

THE PRESIDENT.—I think this discussion is out of order, and it is my duty to put the question.

MR. STOVER.—It appears to me, with all due deference to you, that this discussion is not irregular. We have made a motion that the gentleman be allowed to vote, and it is our right to argue that motion, unless there is a motion for the previous question, to lay it on the table, or so on. I can't, for the life of me, see if we can not allow this gentleman to cast two votes now, how we can consistently allow the gentleman over the way to cast one. I find him with no credentials from St. Louis, showing the action of a proper meeting, and this that has been read has been written by the President since he came into this room this morning, or since he arrived in Chicago.

MR. PARTRICK.—We have the evidence of this whole body of gentlemen who voted for it.

MR. STOVER.—But we have no evidence from St. Louis, but the request of the St. Louis delegation that he be allowed to vote.

MR. FLANAGAN.—I call the gentleman to order, on the ground that discussion in relation to Mr. Partrick's case is out of order, it having been fully acted upon.

MR. STOVER.—I think I am perfectly in order, for this reason—I am speaking to the question, having a perfect right to refer to any thing that has a bearing on the question

MR. FLANAGAN.—That question is decided.

MR. STOVER.—I am not discussing the propriety of it, but I am trying to enforce the idea, that this Convention will not act consistently if it does not take the same evidence on the part of Mr. ROBINSON as it took in the case of Mr. Partrick. I don't want to argue the question further; but I desire it to be understood that a question can not thus be taken up while a member desires to debate it.

The motion being submitted to the Convention, it prevailed by ayes fourteen, nays ten.

The minutes of the session of Monday last were read.

MR. BLISS, of Chicago.—I notice that it states it as the first day of the Convention. That naturally was not the case, because the Chicago delegates met and adjourned during last week. I suggest the minutes be amended, to read seventh day; and that as amended, they be approved.

Carried.

The report of the Committee on Credentials, heretofore accepted, was adopted.

MR. CLARK, of Washington.—I would suggest that the vote in the case of Mr. Robinson, which was taken a few minutes ago, was not exactly right. Several members voted who were not entitled to vote at that time; their credentials were in, but they had not been accepted as delegates.

MR. YOUNG, of Washington.—Under those circumstances, I move a reconsideration of the vote.

Which motion prevailed.

MR. YOUNG.—Now the question comes up on Mr. Stover's motion. I would suggest that the vote be taken by calling the roll. I think that is the proper way to transact business; it is the rule adopted by the last Convention.

The question was then submitted, the roll called, and the question decided in the affirmative, by ayes fourteen, nays thirteen.

MR. YOUNG.—I move that we elect an Assistant Secretary *pro tem.*

Motion adopted *nem. con.*

And upon motion of Mr. Paxson, of Omaha, Mr. T. W. Priest, of Detroit, was selected for that position.

The Secretary read the following report from the Editor of THE TELEGRAPHER.

"C. W. HAMMOND, Esq., PRESIDENT N. T. U.:

"Sir: With the close of the year it becomes my duty to make you my first annual report, as Editor of THE TELEGRAPHER, which will, I trust, be as acceptable to you and the delegates in Convention as it will be gratifying to myself.

"You will remember that the 'Review Bill' was not passed at the last Convention without much opposition, and a great deal of fear and trembling. So great was the guardian care exercised over the Treasury of the Union by a few of the delegates then assembled, that THE TELEGRAPHER was ordered published without a cent to pay its expenses, and if its receipts should have fallen short of its expenses, no way was provided to liquidate the balance, unless assumed by the editor and the friends of the paper. Notwithstanding this remarkable way of commencing business, THE TELEGRAPHER has outlived its infancy, to the astonishment of its most sanguine supporters, and has gone far beyond any thing I dared to anticipate.

"Hoping at first, that it might, before the end of the year, reach to the dignity of eight pages, but fearing four would be its greatest size, I am surprised, and gratified to report it now, as a sturdy youth of sixteen pages, thirteen of which are filled with reading matter, which is, I hope, acceptable to most of its readers.

"Early in its publication you gave over its entire control into my hands, alleging that I could best judge of all matters connected therewith. However flattering to me this course was, it was, nevertheless, ungenerous, for I greatly needed, many times, your advice, a something which I could gain nowhere else so well as from yourself; still, with these disadvantages, coupled with my inexperience, to contend with, I have endeavored to meet the demands of the patrons of THE TELEGRAPHER, and have used my best judgment to make the paper what it ought to be. That I have failed in this object in some respects I will not attempt to deny; but it should be taken into consideration my inexperience, and the fact that I have worked upon the paper with but one hand, and that the left."

"When I state that nine hours each day, every other week, have been employed at my regular duties, while the evenings, and sometimes till the dawn of the following morning, of every alternate week, has found me also at my duties, leaving but an average of but two or three hours a day to do the work upon the paper—parenthetically, let me remark, that it has not been uncommon for me to do two things at once, write for the paper while working my printing instrument; and when it is known that four different kinds of accounts have to be kept; that a quarter, and sometimes half, of the contents of each issue must be written by my pen; that each issue consumes more than one hundred foolscap pages of mss., which must be read by myself four or five times before appearing in print; all this, coupled with the necessary and inevitable correspondence which I am obliged to do, and the charge of dispatching printed supplies to the different Districts, it will readily be seen how easy it has been for me to fall behind what might have been expected. Yet, notwithstanding all this, I feel confident of delivering the paper and its affairs to you and the Convention in a prosperous a condition as it was given into my hands last September."

"Before proceeding to further details, I wish to bear testimony and return thanks for the assistance I received from the many friends of the paper, the foremost of whom are Major F. L. Pope, Assistant Engineer of the Collins Overland Telegraph, and Mr. John Horn, Jr., of the American Company's office in this city.

"These two gentlemen might almost be called assistant-editors, for without their timely and generous aid, I fear THE TELEGRAPHER would not have outlived its cradle. Besides contributing generously to its columns articles of great value and interest, they have been ever watchful for its welfare, keeping a sharp look out for, and supplying me with very many interesting items, and their advice and suggestions I have found very valuable.

"Major Pope, aside from what I have just mentioned, has placed the paper and the Union under obligations to his artistic talents. The designs for the headings of the title and editorial pages, as well as those for the most of the diagrams which have been published, were furnished by him, free of cost, an item which can not be correctly computed by dollars and cents.

"Mr. Horn, besides rivaling the Major with the number of his contributions, stands at the head of those who have secured subscriptions for the paper. Up to this time he has paid me for subscribers nearly \$250, and has been the direct means of circulating the paper through a great extent of country, particularly on the Pacific coast.

"Next to Mr. Horn stands yourself in the subscription account, you having forwarded me fully \$150. In the matter of materials for insertion, I must next mention our worthy Vice-President, whose care for the welfare of the paper, and kindness to me, have been constant and truly welcome.

"It is, indeed, almost useless to particularize, where I have been so ably and kindly supported by all. I can heartily thank the Directors of the several Districts for their large subscriptions, and the fraternity in general for their many sterling contributions.

"THE TELEGRAPHER has proved the truth of the remark made to me last year by (the then) President Smith. In advocating the publication of a review, he said: 'You will find that there lies dormant among telegraphers, a literary talent that will surprise you, and will, with cultivation, prove equal to any thing now current.' And so it is. Many of the best articles, much of the best poetry and the best correspondence has emanated from the brains of operators who were the least thought of as talented in literature.

"The first issue of the paper consisted of five hundred impressions, which were quickly found inadequate to the demand, when five hundred more copies were ordered. The first and immediate sale of Number One was over seven hundred copies, and the balance was sold in less than two months. The sale of the second number reached, at the start, but about five hundred copies. The difference in the number sold of the first two numbers, is explained by the fact that Number One was bought up for general distribution, but the second number was sold only upon subscription. The last copies of the second number were not disposed of until near the end of December. Number Three, which contained twelve pages, sold readily, and in excess of the second number, and nearly equaled the first. The sale of the paper gives no cause of complaint. Sometimes a number contains something of an unusual interest, which causes an unusual sale; this was true of the February number, of which I readily sold one hundred copies more than of any previous issue, and could have easily sold another hundred if I had possessed them. A large number of subscriptions expired with the seventh number, many of which were not renewed for a long time; this, of course, lessened the circulation for a while; but the number is now reached again, and passed.

"From five hundred impressions, the paper has reached thirteen hundred, which will soon be increased. The circulation is now something over twelve hundred copies, more than a thousand of which are sent to paying subscribers, the balance being used for exchanges and general distribution, and the duplicating mail-loss copies. The excitement attending the breaking up of the rebellion, with the summer vacations, which closely followed this great event, lessened the receipts for a time; but they continue steady at about \$100 per month, varying a little either way.

"Up to this time, the total receipts of THE TELEGRAPHER amount to \$2672.42, and the expenses to \$2394.45, leaving a balance in my hands for future expenses of \$261.44. These amounts rather contradict the assertion made at the last Convention, that the paper would be an expense to the Union; \$277.97 of the expense item is money remitted to the Treasurer as profits of the first seven numbers. For two reasons, I have not yet made a report of the last five numbers. The first is, because the copies of them are not yet disposed of; the second, I have not had sufficient time to make the report, but hope to soon after my return from the country.

"In the conduct of the paper, my aim has been to steer clear of any clique or faction or corporation, and to make it a medium of communication among *all* telegraphers, placing it as well within the reach of the lowest as the highest. With this aim I have printed, feeling the danger of being uninteresting, all that I could which came into my hands. Letters and articles which I could print before they were out of date, have

been published almost without alteration, which is probably a remarkable fact editorially. The number of items rejected is very small.

"I early discovered that more than half of the subscribers were not members of the Union, and considering the price of the paper, as compared with others, was very high, I decided it was incumbent on me, due to these outside subscribers and to the Treasury of the Union, to occupy as little space in each issue with the District Proceedings as possible. With this end in view, I have declined publishing all resolutions in full, (except in a few cases where both the resolutions and proceedings were short,) giving only the purport of them.

"The reports sent by several Districts, giving the amount paid into the Treasury, I have always considered of no especial consequence, and have been strongly tempted to strike them out, (which I have been compelled to do in a few instances,) but have been unwilling to do so generally until after I made this report.

"As the number of Districts is rapidly increasing, it will be necessary to adopt some new way of printing the proceedings. I suggest the following: That the proceedings be furnished me as usual, from which I will write out a synopsis of whatever is important. This way will give the substance of each report, and save much valuable space for other interesting matters. This course is growing imperative, and must be adopted, or else the subscriptions will fall off, because of the uninteresting nature of these proceedings to the largest half of the readers of THE TELEGRAPHER.

"Circumstances compelled me to run counter, in many instances, to the provisions of the 'Review Bill.' I was unable to contract with a printer, because of the high and fluctuating price of gold, and believing a decline would soon occur, I was anxious to take advantage of any such chance which might offer. For want of time and the number of copies remaining on hand unsold, I have been unable to make a report as often as prescribed, and will therefore ask the delegates to make the time for my reports every quarter, instead of every month. The amendment to Section 9 of the Bill, made by the committee, was unnoticed until a few months ago, when we thought it inexpedient to make the alteration until the beginning of the second volume, when it will be done as far as possible.

"The price of subscriptions, upon consultation with you, was put at a figure which, of itself, just about covers all expenses. The profits are derived from advertisements, and the increased sale over and above the number upon which the estimate was based. I have taken advertisements at a low figure until the paper could prove its value, and a life beyond its first birthday. The advertisements which I now have, came unsolicited. Had I time, I could fill the other page set aside for them.

"I find I shall be able to issue eight or twelve pages twice a month, unless the Convention sees fit to order otherwise. Once a month in this fast age of ours is too long to wait for any thing in the news line, which is sought for so greedily as THE TELEGRAPHER. This course will bring down the price per copy to nine cents, but the price per year will remain the same. I shall commence this semi-monthly issue in October, if I am able to perfect all the arrangements necessary by that time.

"THE TELEGRAPHER has found friends everywhere. On the twelfth of October last, Colonel E. S. Sanford presented the paper with ten dollars, as an earnest of his desire to see a telegraphic journal prosper. On the seventeenth of December, Colonel Charles S. Bulkeley presented ten dollars as a token of his appreciation of the mission of THE TELEGRAPHER; and on the thirty-first of May, Mr. S. C. Bishop paid into the paper fund the very handsome sum of fifty dollars, as an expression of his regard for the only American Telegraphic Newspaper now in existence, or which has ever been. I have never publicly acknowledged the receipt of these donations, because I was particularly requested by the donors so not to do. I deem it due to them and the fraternity at this distant day to make this public acknowledgment of their very great and disinterested kindness.

"I have received up to this time \$457.37 for advertisements.

"In September last, at my request, and by consent of the Recording Secretary, you gave me the superintendence of all the printed supplies of the Union. Within the year I have had printed supplies as follows:

2000 Envelopes,
4700 Meeting Notices,
1000 Officers and Members' Pledges,
2300 Dues Receipts,
1000 Treasurer's Quarterly Reports,
1500 Constitutions and By-Laws,
500 Certificates of Membership,

making a total of 13,000 copies of printed matter, a portion of which is now on hand, the major part having been distributed on order of the Directors of the several Districts.

"I trust I shall not be charged with egotism when I state that the publication of THE TELEGRAPHER has done more than any one thing to strengthen the Union, and has been the almost direct means of organizing six new Districts and putting the operators of two large cities—one in the West and one in the South—upon the anxious-seat.

"The above report is, I know, very long, but as the enterprise is a new one, about the feasibility of which there was for a long time great doubt, I have considered it requisite and necessary to detail all this information, which is respectfully submitted to the consideration of yourself and the delegates in convention assembled.

"Respectfully your obedient servant,

L. H. SMITH, Editor of THE TELEGRAPHER,
and Superintendent of Supplies.

"Office of THE TELEGRAPHER, New-York, September 1, 1865."

MR. SEYMOUR, of St. Louis.—I move that the report of the Editor be accepted and referred to a committee of three, that they may consider as to the expediency of any alteration of the plan of publication.

MR. EDWARDS, of New-York.—I move, as an amendment, that that committee be increased to seven.

MR. CRAIN, of St. Louis.—I should say seven is too many. We have already seven on one committee, and if we have a few more committees, we shall have all our members out.

THE PRESIDENT.—I was about to say something similar to that. I am about to announce the committees authorized by resolution yesterday, to consider the President's message and so on, and I think, perhaps, that committee might be able to consider the Treasurer's report and this.

MR. EDWARDS.—I would change that, and make it five.

MR. SEYMOUR.—I accept the amendment to make it five.

And the motion being submitted to the Convention, it prevailed.

MR. WHEELER, of Boston.—I move that the Treasurer be, and he is hereby instructed, to pay L. H. Smith, of New-York, the sum of two hundred dollars, in consideration of his services as Editor of THE TELEGRAPHER.

MR. STOVER.—I move, as an amendment, that it be made to read as a small consideration for his services as Editor of THE TELEGRAPHER.

MR. WHEELER.—I accept the amendment.

The resolution passed, *nem. con.*

THE PRESIDENT.—I will appoint the following committees:

On President's Address.—Messrs. Stover, Young, Oltman, Flanagan, McKenzie, Chandler, and Seymour.

On Corresponding Secretary's Report.—Messrs. York, Crain, and Paxson.

On Treasurer's Report.—Messrs. Clark, Yeakle, and Redding.

On the Editor's Report.—Messrs. Edwards, Wheeler, Whipple, Priest, and Bliss.

THE PRESIDENT.—I have the report of the committee on procuring a charter here. It has just been handed to me, and I wish the Secretary would read it.

The Secretary read the report as follows:

MR. PRESIDENT: I deem it in justice to myself and the Executive Committee, to lay before this Convention an explanation in relation to the Charter before Congress, so far as my individual action in the matter was concerned, and at the same time I shall endeavor, in a few words, to give (in my opinion) satisfactory reasons for its failure to pass the House of Representatives at the last session of Congress.

On the receipt of President Hammond's letter, requesting me to make inquiries as to the probabilities of securing such Charter, and if possible to do so, I called on the Honorable J. R. Morris, of Ohio, and during the interview he expressed a fear that Congress had no power to grant us a charter, as our Association, embracing nearly every State in the Union, might possibly interfere in some way with some of the State laws, and in his opinion there would be several serious objections urged in opposition to the bill; but in subsequent conversation, he assured me he would do all in his power to push the matter through; and he being a Morse operator, and seeming to take a deep interest in every thing that pertained to the fraternity, I placed great dependence on his aid and counsel.

As was published in THE TELEGRAPHER, a resolution was passed by the House of Representatives, (which resolution was introduced by Mr. Morris,) instructing the Committee on the District of Columbia to report a bill granting the Charter, if after investigation they deemed it right and proper; this resolution was passed unanimously. Before the passage of this resolution, several gentlemen, among them Mr. Lansing, Clerk of the Committee, to whom this resolution was afterward referred, and the Honorable F. C. Beaman, of Michigan, of the same Committee, assured me that Congress undoubtedly had the power and the right to grant a charter to any association, and in any part of the United States, and it would be perfectly constitutional.

Immediately after the passage of the resolution, the bill was drawn up as printed in the seventh number of THE TELEGRAPHER, with the assistance of Mr. Lansing; and I must be allowed to say here, that it was entirely through his valuable aid and kindness that enabled me to succeed even to the extent that I did. He being the Clerk of the Committee, there was no difficulty in bringing the bill before the Committee to be examined. The only trouble with me, was in the selection of the names to insert as incorporators, as I hesitated for some time to take the responsibility of choosing the names. I at last succeeded in perfecting the bill, and had the bill, together with the privilege of reporting it to the House of Representatives, if he deemed proper and advisable, referred to Mr. Beaman, as a committee of one. After several interviews, and amending the bill slightly, he decided to report whenever he could obtain the floor, and for nearly one month before the adjournment of Congress he was fully prepared and ready. But unfortunately, or fortunately, as I have since thought, there was such an immense amount of business before the House—as is usually the case at the end of each session—the Committee was not called but once or twice, and then he occupied the floor only for a very short time, and having other measures of importance that preceded our bill, the House adjourned before it could be reported. Therefore the original bill still remains in the possession of Mr. Lansing, the Clerk of the Committee, and there will be nothing to prevent action upon it soon after the reassembling of Congress.

To say that I was greatly disappointed, would not begin to express my feelings, as I was extremely anxious to have the Charter pass the House of Representatives, and there would have been no difficulty in pushing the bill through the Senate.

This is a plain statement of all the facts in the case, and you now have the whole subject before you, and can certainly arrive at some conclusion. In my humble judgment, a State Charter would be almost entirely useless, and if we can not obtain a Charter from Congress, we better remain as we now are. There will certainly be no failure at the next session, and all that now remains, is for us to perfect the bill in all its parts, and in this connection I should like to hear a free and full expression of opinions. My humble efforts, and all that I have done, were to the best of my ability and knowledge, and with an eye solely for the good of the Union.

I shall not now make any motion, but suggest that we might go into committee of the whole on the bill, or else appoint a committee of one from each District on the subject, as it is best for us to proceed slow and sure, and have no drawbacks.

Respectfully submitted.

WILLIAM H. YOUNG.

MR. CHANDLER, of Chicago.—I move that the report be accepted, and that the committee be discharged.

MR. FLANAGAN.—I object to discharging that Committee. I think we had better keep him as long as we can. He is a useful man; the right man in the right place, and as the matter is not settled, I think we ought to continue him. I move that Mr. Young be made a Standing Committee on Charter.

MR. CHANDLER.—I move that the report be accepted, and that he be continued as a Committee.

The last motion being submitted, was adopted, *nem. con.*

MR. STOVER.—I have a resolution to offer:

Resolved, That in the opinion of this Convention, THE TELEGRAPHER should be conducted *solely* and entirely in the interests of the Union, and no articles open to the charge of partiality or favoritism for any Telegraph Company should be admitted to its columns.

Resolved, That if any editorial articles on the selection of officers of the Union are published in THE TELEGRAPHER, its columns should be open to all communications on the same subject from any member of the Union.

Resolved, That as the principal object of the publication of THE TELEGRAPHER is to have an organ for the Union, in the opinion of this Convention, the Reports of the proceedings of the District meetings should be published as forwarded by the Directors of the several Districts, and the provision to this end, as incorporated in the original act to establish the Review, be strictly adhered to.

MR. CHANDLER, of Chicago.—I offer as an amendment, that these resolutions be referred to the Committee on the Report of the Editor of THE TELEGRAPHER.

MR. STOVER.—That is not an amendment.

MR. CHANDLER.—I make it then as a motion of reference.

MR. STOVER.—I wish to speak upon its reference. I object to the reference to that Committee, because I think the Convention here fully competent to discuss and pass upon the resolutions, and because a full expression of the Convention can be better got at without a reference than by it. If they are referred, the report may be made in such a way that we can not fully discuss these resolutions. I am certainly perfectly willing to abide by whatever the decision of the Convention is, and I think we can have that without the intervention of a committee. I have not stated in my remarks, my reasons for offering these resolutions. I don't speak upon their adoption; but if the reference be not carried I shall then have something to say on their adoption.

And the question of reference being submitted to the Convention, it prevailed, by ayes, seventeen; nays, twelve.

MR. CLARK, of Washington.—I move the following:

Whereas, The Christian Sabbath being universally respected throughout the United States, and the manner of keeping it being generally considered as indicative of the moral character of persons and associations.

Resolved, That in the opinion of this Convention, it is entirely incompatible and dangerous to the objects and interests of the Union, as set forth in the preamble to the Constitution, for Districts and members to use that day for the transaction of business in behalf of the Union.

Resolved, That we discourage, as far as possible, the prevalent idea, that members can not be collected together for meeting purposes except on Sunday, believing that a greater good result would follow were no meetings held, than if held upon Sundays.

MR. SEYMOUR, of St. Louis.—I think that resolution is regular. It opens a very wide field for debate. I think if it is not proper for us to work in behalf of our Union, it is certainly not proper for us to work for the companies we are employed by on the Sabbath day.

The resolution was submitted and adopted.

MR. YOUNG, Vice-President, presiding.

MR. WRIGHT, of New-Jersey.—I move it be

Resolved, That the thanks of this Convention be extended to Mr. L. H. Smith for the able and efficient manner in which he has conducted THE TELEGRAPHER during the past year, and that the thanks of this Convention be extended to Colonel E. S. Sanford, Colonel Charles S. Bulkley, and Mr. S. C. Bishop, for their contributions in the good cause.

Which resolution was adopted.

MR. RICE offered the following resolution:

Whereas, It is one of the principal objects of the National Telegraphic Union to establish and maintain between all practical telegraphers equitable and harmonious relations, be it therefore

Resolved, That we can not express too strongly our disapprobation of the feuds existing in certain localities between the employees of rival Telegraph Companies. We see no reason for such feuds, and do not consider our obligations to the companies employing us make it incumbent upon us to take part in their quarrels, where any exist; but while our whole duty to our employers is simply to perform faithfully and carefully the work assigned us, our duty to ourselves absolutely requires that we should cultivate between each other the most amicable relations.

Which was adopted.

MR. FLANAGAN, of Louisville.—I think it is time we should make some arrangement as to the time of our sessions. I think we ought to decide at once during what hours we are to meet. We have a good deal of business to do, and it is necessary that we should know when we are to meet. I should be in favor of two long sessions a day.

MR. PRIEST, of Detroit.—I am in favor of three.

MR. FLANAGAN.—I move the hours of the sessions of the Convention be from ten to one, and from half-past two until six; two sessions a day. I do that to bring the matter before the house, believing that we can work better during four hours of a continuous session than in the same number of hours broken in upon by adjournments.

MR. STOVER.—I hope that the gentleman's motion will not prevail. It seems to me that it is our duty to be in session just as many hours as may be possible until our work is accomplished. Every hour the delegates stay in Chicago beyond the time absolutely necessary increases the expenses to the Union very much. Indeed, I believe the proper way for us to conduct business is just this: to work here all the day and in the evening, then, after the work is all accomplished, those who choose can go home, and those who choose to stay for pleasure may do so. For one, I am in favor of evening session. I can not see why we can not come and work during the evening as well as in the daytime. If members, after getting through the afternoon session, are going to conduct themselves in such a manner as to be incapacitated for duty, I should like to know that fact. Certainly there is but one interpretation to be given to the remark that we can do about as much in a few hours in the day as if we add an evening session.

MR. FLANAGAN.—I did not say so. I said we could work better four hours continuously than during two hours in the morning, and two in the afternoon, and two at night. I think the inference of the gentleman is out of order, uncalled for, and unjustified.

MR. STOVER.—I beg the gentleman's pardon, if I misunderstood his remarks. I offer an amendment, that we also have an evening session, to commence at half-past seven and continue until half-past nine o'clock.

The amendment was lost, and the question recurring on the original motion:

MR. STOVER.—I want to make one statement. There are some members here who came to do work, and they are willing to do the work in all the time it is necessary to accomplish it; but if the Convention chooses to waste time in pleasure, and for other reasons, and so the work is not accomplished within a reasonable time, these delegates will leave, as some of them are obliged to do on Thursday morning. Some of the delegates must go home, be the work done or not; but if it be not done, I don't believe it will be their fault. I move we have an evening session.

MR. HAMMOND (President.)—I entirely concur with what the gentleman has said as to evening sessions. We have evidently a great deal of work before us, when the

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reports are made, upon which debate will be necessary. I think we ought to go to work and work steadily until we can see we have only one day's work on hand. I am in favor of a night session.

The amendment of Mr. Stover was adopted, and the resolution, as amended, prevailed, by ayes, twenty-six; nays, four.

Mr. STOVER.—I move to amend the act establishing THE TELEGRAPHER, by adding

"Sec. 17.—If at anytime, or for any cause, it may be deemed by the President necessary for the best interests of the Union to supersede the acting editor, or on account of death, to fill his place, he shall, by and with the advice and consent of the Executive Committee appoint suitable person for the position."

A thought suggests itself to me. I know it is proposed to make the editor of THE TELEGRAPHER also the Treasurer, and it is just possible that something might occur, by reason of which it might be deemed necessary by all the members of the Union that there should be a change, in which case it should be in the power of some one to make the change. I don't offer this amendment as directed against Mr. Smith, or because I think it may be necessary to change him; but I believe some proposition of that kind is necessary to perfect the bill, so that we may be prepared for any contingency.

The amendment was adopted, *nem. con.*

Mr. WHEELER, of Boston.—I move, in that connection, to strike out from Article IV., of an act to provide and make appropriation for the publication of a monthly review, etc., the words, "The President shall, with the advice and consent of the Executive Committee, appoint," and insert instead, "The Convention shall elect." My object in making that motion, is simply this, that the editor of THE TELEGRAPHER should be the exponent of the Union. He can only be so as he is the choice of the members of the Union, as represented by their delegates. If he is appointed by the President, he is the choice of that one man, while if he is elected he is the representative of us all.

Mr. HAMMOND (President).—I hardly think he should be removed by any except the power that put him in.

Mr. WHEELER.—The idea is this, that while he will be elected by the Convention, if at any time the President and Executive Committee between the meetings of the Convention, see that it is actually necessary to remove him, they have the power to do it. Some one should do it if it becomes necessary, and it certainly should be left with the Executive Committee to act in such a case. This is not directed against Mr. Smith, but against any editor that we may have; it is to protect ourselves in the future.

Mr. STOVER.—I would suggest if we pass this, it will not be necessary, in making Mr. Smith both Editor and Treasurer, to amend the Constitution at all. We can just elect him to both positions, and so we can continue to do at all times, as long as we may deem it proper; but if, at any time, it becomes proper to elect one person to each office, we can do that. It appears to me this is the best way we can get along with that matter.

The amendment was adopted.

Mr. STOVER.—I move the following amendment to Art. II., Sec. 3, Clause 1, to make it read, "The Convention shall assemble at least once a year, and such meeting shall be on the first Wednesday in September." This changes the time of meeting from the first Monday to the first Wednesday.

Mr. WRIGHT, of N. J.—I would like to offer an amendment to that, and make it the second Wednesday. The first Wednesday is so near to the first of the month that a great many of our delegates have settlements of accounts to make with their companies, taking them two or three days generally; it is inconvenient to leave, and we don't like to leave until the accounts are properly attended to.

Mr. STOVER.—I accept the amendment.

The amendment was adopted, *nem. con.*

Mr. WHEELER, of Boston.—I move to amend the By-Laws, Art. I., Sec. 1, Clause 1, to make it read, "The hour of meeting of the Convention shall be ten A.M." I think two P.M. is a loss of the forenoon; we might as well get to business in the forenoon of the first day as in the afternoon.

The amendment prevailed, *nem. con.*

Mr. STOVER.—I move that during the future sessions of this Convention, no votes be received as proxies for members who have at any time acted in this Convention, and who may from any cause absent themselves.

Mr. CHANDLER.—I think that is unjust to delegates of the District wherein the Convention is held, in this case, of Chicago. All the delegates, except myself, from the District are obliged to work at the key every day, and they can only get away part of the time. I think it is unjust to cut off their votes.

Mr. STOVER.—It seems to me perfectly fair and proper, to guard against a large number of delegates absenting themselves and leaving their votes with proxies. When we are fully at work, it might be quite a large evil if allowed to go on. I will withdraw the motion, but I trust the gentlemen will remain. I certainly have no objection to the delegation from Chicago having its full vote.

Mr. YOUNG, of Washington.—I think we can avoid that by requiring a delegate who wants to leave to obtain the consent of the presiding officer.

Mr. STOVER.—I will amend my resolution, that it be unless in such cases as leave of absence has been given by the presiding officer.

As amended, the motion of order prevailed.

Mr. CLARK, of Washington.—I move that it be enacted that whenever a member is discharged for non-payment of dues or other cause, unless the discharge be of a more aggravated nature, his discharge be not published in THE TELEGRAPHER.

Mr. WHEELER.—I move to amend, that while it shall not be published in THE TELEGRAPHER, the Director of the District wherein that man is expelled shall notify the Director of every other District. Otherwise, how in the world are we to tell who is expelled? A member expelled in the Philadelphia District might come to Chicago and make representations and show a certificate as though he were in good standing, and no one can dispute it. Unless he comes with a transfer, the Director of this District could not tell if he was a member in good standing or not. Therefore I would like to amend to say, "but the Director of the District in which he was a member shall notify the Director of every other District."

Mr. YEAKE, of Baltimore.—I don't see why such a duty should be imposed upon the Director of each District. I think that some amendment giving some months of grace should be given, allowing him to pay his account, and then, in case of default, it should be published, rather than to compel the District Directors to write so many letters.

Mr. WHEELER.—Well, I will withdraw my amendment, as I find that it will be superfluous, as I have a motion which no one can object to in relation to transfers from one District to another, if that is best.

Mr. HAMMOND, (President).—I hope the motion will not prevail. I think that if a man

is worthy of being expelled, it will not hurt us much to publish him. I know that a man that is too mean to pay the little trifling sum due for his dues, which he has agreed to pay, and allow them to accrue, the only way to get at him is to publish him and let the world know how mean he is. We have had two or three cases of that kind, and I know it has only been the fear of this lash held over them that kept them within the bounds of decency. For that reason I hope it will not prevail.

Mr. RICE, of Albany.—We have had this same thing occur, and it has only been this fear of having their names posted that had made these men come down.

Mr. CLARK, of Washington.—The question is one of interest to the Union. We don't care any thing about disgracing the men who are expelled. All we want is to look after our own affairs, and if we publish these expulsions we only afford accommodation for malicious attacks upon the Union. The publication of the expulsions justifies attacks upon the Union, and furnishes some means to injure or to malign the Union. It seems to me we disgrace a man sufficiently when we expel him, and it is the duty of the Director of course to notify, and if he does not, he fails to do his duty.

Mr. HAMMOND, (President).—I hardly think that the fact of publishing will have that effect against us. I think, however, it will have a better effect in the other way. It encourages men of experience and influence to find that we lop off the useless limbs. I think the publication will have a much greater beneficial effect than any thing else we can do.

Mr. CLARK.—I don't like to take issue with the President at all, but at the same time I can not see how the publication of discharges is to benefit the Union. I don't see how it can do us good, and there is a probability it will do us injury. There have been examples. Two men have been expelled in the Washington District, and in one case it has caused much enmity among those who have been strong against the Union. If we are going to publish these things in THE TELEGRAPHER, we are only affording means for them to attack the publication as a pattern of what we are doing all the time. The parties don't interest themselves to look into the matters which we attend to for our own good, but only matters which threaten to the disgracing of men from the Union, and by which they threaten injury to the Union. I can't see that the publication can do us any good.

Mr. HAMMOND, (President).—I understand the gentleman's argument is, that if we publish the expulsion of these men, people outside will see that we have had bad men in our ranks, and will be afraid there are a great many more. Now these bad men who belong to the Union are known as a general thing; they are known as members of the Union, and that they are members is more of a cause of scandal than any thing else, and whenever they are expelled it will do us good, inasmuch as it will show most conclusively that the bad or unworthy men in our business are the exceptions and not the general rule, and it will show by these publications that we are not willing to associate with that class of men.

Mr. CLARK.—It is only aimed to meet cases of expulsion for the non-payment of dues.

Mr. FLANAGAN.—I move to add to the amendment, "unless by the special request of the members of the District in which he lives, made through the District Director."

The resolution and amendment were lost, by ayes eight, nays twenty-one. On motion of Mr. FLANAGAN, the Convention adjourned in course.

The Convention reassembled at half-past two P.M.
The President in the chair.

Mr. WHEELER.—The Constitution as it now stands, with regard to the transfer of a member from one District to another, simply says: "In changing their place of residence beyond the District in which they are enrolled, members may be enrolled in another District by presenting to the District Director certificate of membership. We all know that is not anywhere near sufficient. That a member can come into a District and present his certificate to officers who know nothing of his dues. I move to amend to require a certificate with a statement of the dues.

Mr. YOUNG.—I think we had better proceed in a different manner in this thing, or we shall get it all mixed up. I think it would be a good idea to go into committee of the whole upon the Constitution.

Mr. CHANDLER, of Chicago.—Would it not be well to appoint a committee for the revision of the Constitution, to whom all resolutions concerning changes of the Constitution should be referred?

Mr. YOUNG.—That will only delay the matter. I think the best we can do is to go into committee of the whole on the Constitution, and amend it as we go along. I make that motion.

Mr. CHANDLER.—I withdraw my amendment.

Mr. STOVER.—I would suggest that we include the By-Laws.

Mr. YOUNG.—I intend that.

The motion resolving the Convention into Committee of the Whole being adopted, Mr. WRIGHT, of New-Jersey, acted as Chairman.

Mr. EDWARDS, of New-York.—I move to amend Article I., Section 1, Clause 2, to insert, before the word "and," "an Editor of THE TELEGRAPHER."

Mr. YOUNG.—I can't see the necessity of amending that section. The Editor of THE TELEGRAPHER is to be elected by the Convention, and I don't see the necessity of putting it in the Constitution. There is more in it now than should be there, and I think it is inexpedient and out of place. I can't see the necessity of it at all.

Mr. EDWARDS.—It is done to make the editor of THE TELEGRAPHER an officer of the Union.

Mr. YOUNG.—It seems to me it would be better to elect the Editor of THE TELEGRAPHER the Treasurer of the Union. He is acting in capacity of an officer of general supplies, and I don't see any necessity of changing it.

Mr. EDWARDS.—I leave it to the sense of the Convention.

Mr. STOVER.—I believe with the gentleman from Washington. I don't see any necessity of adding that or making any amendment. In fact, it appears to my mind to have quite a number of objections. If that amendment is made, it makes the Editor of THE TELEGRAPHER one of the Executive Committee of the organization, one of its officers. If he holds the position of Treasurer also, which I presume it is proposed to give him, it would give him two votes in the Executive Committee. It doesn't appear to my mind that the editor of that paper should be recognized in the Constitution as a general officer of the organization. He belongs more properly outside of the general organization. And further, we have just passed a vote by which the President, with the Executive Committee, can supersede the editor of the paper at any time. If he were an officer under the Constitution, I believe that would be improper.

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MR. EDWARDS.—The fact of being elected as other officers are, would make him a general officer as much as any other.

MR. STOVER.—It might if you do as you propose, but you might elect a sergeant-at-arms, and that would not make him a general officer.

The amendment was lost.

MR. SEYMORE.—I move to amend Article I., Section 1, Clause 1, to read, "This Association shall be known as the North-American Telegraphic Union."

MR. PARTRICK.—I move the adoption of the clause as it is read.

The amendment of Mr. SEYMORE was rejected.

MR. WHEELER.—I move to amend Article I., Section 1, Clause 3, to insert after the words "District Director," "a District Secretary, a District Treasurer." My idea in altering this is simply to recognize the District Secretary and Treasurer as District officers.

MR. EDWARDS.—I move to amend further to strike out the words "each office," and insert "each place, city, or village."

MR. WHEELER.—I shall not accept that unless it is so decided by the house.

The amendment of Mr. Edwards was adopted, and Mr. Wheeler's amendment, as amended, was adopted.

MR. STOVER.—The fourth clause of Section 1 of Article II., is about as clear as mud.

MR. OLTMAN.—I would like to know if the committee on President's report will not change that article.

MR. STOVER.—If this amendment I shall offer is accepted by the Convention, there probably will be no necessity to refer to that point in the report. I move that clause read, "the number of delegates shall not exceed one for the first twenty-five members," etc.

MR. CRAIN.—The committee will be of no use.

MR. STOVER.—If by our action we relieve that committee of a portion of their duty, it is all very well. We can act upon these points, but if any point is not touched, we can act on it when the report is received.

The amendment prevailed.

MR. STOVER.—I move to amend Article II., Section 1, Clause 5, to insert after the words, "the first Monday in August," the words, "or at as early a day following as practicable." As it is now, if it is not done on the first of August, it can not be done at all.

The amendment prevailed.

MR. YEAKLE, of Baltimore.—I move to amend Clause 7 of the same Article, to strike out, "shall order an election to fill such vacancies," and insert, "shall have power to fill such vacancies."

MR. WHEELER.—I oppose that amendment for the reason, if a delegate is sick or should die, then there is no possible way to fill his place, and it seems to me there is no better way, if a delegate can't go, than to have a meeting called that another may be elected.

MR. STOVER.—I move to amend the amendment, to let the clause read, "the Director of the District in which the vacancies occur, shall order an election to fill such vacancies; when this is impracticable, the officers of the District may appoint suitable persons to fill the vacancies."

MR. YEAKLE.—I will withdraw my amendment.

The amendment of Mr. Stover was accepted.

MR. WHEELER.—It seems to me that the word "Telegrapher" in the Constitution is out of place, for the reason that THE TELEGRAPHER is not known to the Constitution any more than the *Chicago Tribune*, or any other paper. There seems to be no necessity for putting it in, as it is the action of a meeting, and not laid down in the Constitution, and there is no provision for such a paper. I therefore move to strike out "in THE TELEGRAPHER" from Article II., Section 3, Clause 4.

MR. FLANAGAN.—Suppose some of the officers should take a notion to publish it in the *Chicago Tribune*?

MR. STOVER.—That would not prevent THE TELEGRAPHER from publishing it as well.

MR. WHEELER.—My idea is, that it is out of place to speak of the paper in the Constitution when it is not provided for in the Constitution; I think it is out of place. I have no objections to it other than that.

MR. FLANAGAN.—The Constitution makes it the organ of the Union by this mention.

MR. STOVER.—It seems to me the point is well taken, that there ought to be an article in here, in which THE TELEGRAPHER should be recognized as the organ of the Union; but unless it is here, it seems to me that the word "Telegrapher" is out of place here. I suggest that the gentleman's motion be not adopted, and that he make an amendment by and by, that we may recognize THE TELEGRAPHER.

MR. WHEELER.—I will withdraw my motion for a time.

MR. YOUNG.—I would like to make an amendment to Clause 5 of this Article, to insert after the word "Treasurer" the words, "and the Editor of THE TELEGRAPHER."

MR. STOVER.—I move to amend Article III., Section 1, Clause 2, in accordance with the amendment passed heretofore, by making it read, "on the second Wednesday of September."

Which amendment was accepted.

MR. MAKLE, of Chicago.—I move to amend Section 3 of the same Article, to strike out "25" and insert "23."

Amendment accepted.

MR. RICE, of Albany.—I move to amend Section 4, to add, "also if he deem it necessary to postpone the time of the meeting of the yearly convention."

Amendment accepted.

MR. YOUNG.—I would like to make an amendment to Article IV., Section 1, Clause 1, to insert after the word "expedient" the words, "and sign all bills and resolutions passed by the Convention."

Amendment adopted.

MR. STOVER.—I move to amend Clause 3, by striking out "one thousand dollars," and inserting "\$2500." That only makes the bonds of the Treasurer \$5000, because he recognizes himself in the sum of \$2500. It appears to me as the sum already in the Treasury is about \$2500, and very likely to increase, we should have a sufficient security to recover what may be in the Treasurer's hands in the event of any contingency.

Amendment accepted.

MR. STOVER.—I move the committee rise and report progress. I will state my reason for doing so. I find that the action we take here is not final. The Committee of the Whole is used for a purpose entirely different from what we are using it. It is used in legislative bodies generally to consider any special subject, to avoid any member calling for the previous question, or cutting off debate. I don't see any necessity of

our continuing in this way, and being obliged to report the same when members may ask that it be taken up and all gone over with again. I think we can just as well act upon these matters in convention, and settle the thing as we go along, as to make all this record and then report.

MR. YOUNG.—I think this is a matter of special importance, and I think it right we should go into committee of the whole. At the two former conventions, these matters were rushed through in rather a hurried manner. I think it is the most proper way to go through the Constitution—it is a careful way of amending the Constitution, and I hope the committee will refuse to rise.

The motion was lost.

MR. EDWARDS.—I have an amendment to offer to the sixth clause, that the words, "and to superintend at all times the affairs of his District," be in italics.

Amendment accepted.

MR. EDWARDS.—I move that in the Seventh Clause the words "Local District" be substituted for "office" wherever it occurs, and the words "collect, count" be stricken out, and "receive" be inserted, and that the word "general" before the word "elections," be stricken out.

MR. OLTMAN.—I move to amend to add Clauses 8 and 9, "whereas it has become imperatively necessary."

Which amendment was adopted.

MR. CRAIN, of St. Louis.—I move to amend Article V., Section 1, Clause 1, to strike out "must be offered in open meeting of the Convention," etc., and insert, "must be submitted to his constitutional successor."

Amendment accepted.

MR. FLANAGAN.—I would like to ask the decision of the Chair as to whether Article VI., Section 1, Clause 1, requires a "sound-operator" of three years' experience, or whether that restriction refers only to paper-operators?

THE CHAIR.—As I understand it, a good sound-operator can be admitted if he is of three years or one or two years' standing.

MR. MCKENZIE, of Sacramento.—I move to amend that Article VI., Section 1, Clause 1, read, "of at least one year's experience," instead of "three years."

MR. FLANAGAN.—Does that refer to paper-operators as well as sound-operators?

MR. MCKENZIE.—I refer it to all of them.

MR. PARTRICK.—If we stick to the letter of the Constitution, then there is a member of the Washington District not entitled to be admitted. He reads by sight. I don't suppose it would make any difference, but, according to the letter of the Constitution, he could not be admitted.

MR. FLANAGAN.—I move to insert the word "sight."

MR. STOVER.—Is not a paper-operator a sight-operator? I think there is but one fair interpretation of the clause. It must be those of three years' experience. I think the fair interpretation of it now is this, that they must be sound-operators, or printing or paper-operators of at least three years' standing. I think if you strike out the word "or," between "printing and paper-operators of three years' experience," it will reduce the character of our Association very much; indeed, I know many who really would not be considered much on a telegraph-line, and I, for one, object to any person becoming a member of the Association, unless he has capacity enough to prove himself a very fair operator. If a man has been an operator of three years' standing with paper, and is not advanced beyond that, I think he is not fit to be a member of the Union, but I am willing to swallow that.

MR. MCKENZIE.—It has been the practice in our District for a man who could read by sound to be admitted as a member, and I don't see why a paper-operator should be excluded.

MR. MERRILL, of Maine.—Would it not be advancing the interests of the Union to admit to our Union cashiers and clerks? We have some excellent men in the business of telegraphing, who are acting in these capacities—cashiers, receiving and delivery-clerks. Should we restrict the benefit of our Union entirely to operators? Would it not be advancing the interest of the Union to admit these men? I am not recommending or advocating the policy, but I wish to bring out the suggestion for the benefit of the Convention, in order to ascertain the feelings of the Convention.

MR. FLANAGAN.—I should certainly be opposed to that. Our Union is got up to improve the standard of the profession. A clerk is not a member of a profession. A clerk has nothing to do with our business; he is employed by the parties to keep books; and most every man can be a clerk, if he can write, read, and cipher a little; but you have to study some time, and practice much, to become a skillful operator.

MR. PARTRICK.—I oppose the amendment, for the reason, our Union would be flooded by these operators from the schools. There are some two or three hundred in existence that have been in existence for a year, and they are considered paper-operators, and I don't consider them entitled to be called operators at all.

MR. MCKENZIE's amendment was lost.

MR. YOUNG.—In the Sixth Article, Clause 2 of Section 1, after the words "may be made" to insert, "any member in good standing."

MR. EDWARDS.—I move to amend that clause to read, instead of "the Local Director," the words, "to the Director of the Local District in which the applicant resides, at least one week before the night of meeting."

MR. EDWARDS's amendment prevailed, and the amendment so amended was adopted.

MR. YOUNG.—I move to amend Clause 3, to insert after the word "application," "the member shall report the same to the District Director, who," etc.

Amendment adopted.

MR. STOVER.—I move to amend the Constitution, by adding the following clause to Article VI., Section 1, Clause 4: Operators of experience engaged in other business, to the exclusion of Telegraphy, may be admitted as honorary members of the Union, on the payment to the District Treasurer of the sum of five dollars, as an initiatory fee. They shall not be subject to assessments of any description, and shall have no claims on the Treasury of the Union in case of sickness. They shall be admitted in the same manner as others members, and shall have the privilege of attending District meetings, and may speak upon any subject that may come before such meetings, but they shall not be entitled to vote.

Adopted.

MR. YOUNG.—I would like to suggest if it would not be better to make a separate article of that.

MR. STOVER.—This is a separate clause.

MR. YOUNG.—I think it would be better to make a separate article of it.

MR. STOVER.—This article is on membership, but I have no objection to its being placed in a separate article.

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MR. FLANAGAN.—I would like to suggest if it would not be better to make the initiation for honorary membership ten dollars. There is no society hardly in the world in which member has not to pay an initiation fee of some amount.

MR. STOVER.—I like the gentleman's suggestion, and will modify the amendment. So amended it was adopted.

MR. EDWARDS.—I move to add a clause, that "All applicants for membership shall deposit one dollar with the Local Director; and in case the person does not come forward, and pay his dues, it shall be forfeited to the Union; but if he be not elected, it shall be returned to him."

MR. WHEELER.—I should like to amend that, to make it one dollar and twenty-five cents, which is the initiation fee.

MR. EDWARDS.—It is not very particular. It is only done to guarantee that we shall not go through the labor of investigation, and of reporting and balloting, and so on, without the party coming forward. I will accept the amendment to make it one dollar and twenty-five cents.

MR. CLARK.—I move to amend by adding to Article VI., Section 1, Clause 3: "No application for membership will be entertained, unless accompanied by the initiation fee."

MR. STOVER.—I understood that is covered by the other.

MR. CLARK.—I withdraw it then.

The amendment was adopted.

MR. YEAKLE.—I now move the insertion of an additional clause: "The Committee shall, after charges have been submitted to them, give notice through the columns of THE TELEGRAPHER that such charges are pending, and the accused shall have one month from the date of the publication of such notice to rebut such charges, after which time the District may dispose of the case as provided for in the foregoing section of this article."

MR. STOVER.—I am opposed to that amendment for this reason: In the first clause it reads, "who shall thereupon appoint a Committee to investigate the matter and report to him." Of course, it is the duty of the Committee not to only hear one side of the question, but to hear both. It is part of their duty to the member to let him know there are charges against him, and to hear his defense, and then report.

MR. YEAKLE.—In certain cases, it is impossible, not knowing the member's post-office address, to do it. The only way I know of in such a case of giving him notice is to make that publication.

MR. STOVER.—It must be a singular case where the District Director can not tell where the parties are that belong to his District.

MR. PARTRICK.—Mr. Yeakle has had some experience in that matter.

MR. WHEELER.—I have no objection to the amendment, if the charges are not to be published. If you merely notify him that there are charges against him, and that he shall come forward, it is well enough, but I don't think it is proper to publish any charges against a member in the District.

MR. STOVER.—If you strike out the word "such" you will avoid that.

MR. YEAKLE.—I accept that amendment.

So amended the amendment prevailed.

MR. PARTRICK.—I would like to ask if this Convention considers lunacy sickness.

MR. FLANAGAN.—It is; a very serious one too, I should think.

MR. PARTRICK.—I only asked because there is a case in the Philadelphia District of that kind. There is an operator who has been in the asylum some months, and is likely to be for some years, and we have been in doubt whether he was entitled to his dues, and we desire the opinion of the Convention in regard to his case.

MR. STOVER.—I move to amend Clause 1 of Section 1, Article VII., by striking out the words, "if he desire," also the words, "or if it be considered inexpedient longer to continue such payment," and insert, "and the President shall instruct the Treasurer to pay upon the order of the District Director."

MR. YOUNG.—I call for a division of the question.

The question being submitted on the first clause,

MR. STOVER said.—My idea is just this, that the beneficent part of the Association should be more efficient than it ever has been yet. As the matter stands now, if a man is sick, if he actually needs assistance from the Association, most of them would feel a great deal of delicacy about applying; and as it stands he must actually make the application, or he can not have the money. This makes it look like a matter of charity. To my mind, it should not stand so at all. If a member is sick, he should be assisted. We should not wait until he asks for it, but the money should be paid to him of right.

The first clause of the amendment prevailed, and the second clause being before the Convention,

MR. PARTRICK said.—I am opposed to that, because it is giving unlimited power to a certain few to draw on the treasury for what they see fit. I think all money should be drawn by the President's order.

MR. WHEELER.—I should move to amend that. I think one draft should be made on the Treasurer and should be countersigned by the President. I don't think that a draft should be honored unless countersigned by the President.

MR. STOVER.—My idea was this—that after representation by the proper District officers that a man is sick, the President orders the payment of money. That can only be an order for payment to that time, or what may be due the sick member; and that if, every week or three weeks, payments are to be made, you have to go through the same form again, and another order has to be issued. I am inclined to believe this might work slowly and badly in the Union; and thinking that our several officers are honest, and that if the Directors and Council countersign any order for relief, it is fair to presume they are honest, and that the draft ought to be paid.

MR. WHEELER.—Allow me to see if I understand the matter right. The Treasurer can't draw his money without a draft countersigned.

MR. PARTRICK.—I have been doing so; but I have never paid any money but on the order of the President. The Constitution has this provision: "He shall make no disbursements unless authorized to do so by the written order of the President, such order to be retained by the Treasurer as a voucher for such disbursement."

MR. STOVER.—If no objection is made, I would like to change this. I would change it to read, "The President shall immediately issue an order to the Treasurer, directing him to honor the draft of the District Director, countersigned by his Council."

Which amendment was adopted.

MR. FLANAGAN.—I move to amend Article VII., Section 1, Clause 1, by substituting for the words, "six dollars," the words, "twelve dollars;" and still further, by adding, "the allowance shall commence with the first week of sickness."

MR. PARTRICK.—I don't think there is any beneficial society in the country that pays twelve dollars a week if a member is sick. I think we would deplete our treasury in one year by such a course as the one proposed. I think six dollars is as much as can be paid; but if any member can show different, I should like to hear his remarks. I am now, however, thoroughly convinced that the payment of such a sum from the amount of dues received by us, would bankrupt any society existing.

MR. FLANAGAN.—I would state we at the South have to pay three dollars for each medical visit; and I am instructed by my District to advocate the payment of twelve dollars a week. Thus I make this motion to amend, in order to bring the matter again before the house. I think the payment ought to be increased some, although I shall not insist on twelve dollars; but I bring it up in that way. Six dollars a week don't help us. It is almost useless to ask for it. We have a member who has been sick four weeks, and he has had, from his physician, two visits a day, and each day swallows up the entire allowance.

MR. STOVER.—I object to the amendment, because I do not believe the treasury of the Society can stand any such drafts as would be made upon it. If this amendment is adopted, members may think it is a very pleasant thing to receive twelve dollars if they are ill; but they ought to remember, as members of this Association, that that money has got to come from members; and if they pay but six dollars into the treasury of the Association, they ought to consider very carefully whether the treasury of the Association would not be very soon depleted by such drafts upon it during two years. The charity clause of our Constitution should be a beneficent clause. Thus far it has been stated in such a way, that every man who has felt the need of assistance has been too delicate to ask for it, and for that reason, more than any thing else, is due the fact, that our treasury at this time stands in so healthy a condition; but, with this provision we have just made, making these amounts not only due members of right, but making it incumbent on the officers to see they receive it, of course every person that is sick must receive a certain sum of money, unless he chooses to give it back. My knowledge of telegraphers is such as leads me to believe, if you make this amendment, they will not only take the twelve dollars, but they will take it, of course, as long as they remain ill, and that would make a very large sum. I don't think our treasury can stand such a draft, so long as the payment is but six dollars for dues. There may be some associations that pay six dollars when the dues are only three dollars, but in all beneficiary organizations you will find the initiatory fees are very large, being graded, as in odd-fellowship and free-masonry, at ten, fifteen, and twenty dollars, upon taking each degree. I will offer a proposition, that any member who wants to claim ten dollars a week, shall pay ten dollars a year into the treasury, and shall then be so entitled. Let it be changed in that way, and I think it would work then.

MR. MERRILL.—I was once acquainted with a mutual benefit association which paid but four dollars a week; yet one man, by reason of long and lingering sickness, was the means of ruining the association. By paying him four dollars a week, they had to demolish the concern, in order to get rid of paying that one man. The object of these payments is not to pay the whole expenses of a man in his sickness. When a man gets his house or property insured, he does not expect to get an insurance for the full value of the property, but his object is, in case of loss by fire or damage, to be, in some sense, in some part reimbursed for the loss, not to have the whole made up to him. If I am sick, as a member of the Union I don't expect to have all my expenses paid. If we are going to do that, why not incorporate some provision of that sort here? I think we should state some reasonable sum, and not leave it optional with the individual, but pay him, if he is sick, so much as we can afford to pay him, and not such a sum as we may be well assured will ruin the concern.

MR. HAMMOND, (President.)—I want to make some remarks on this subject, and perhaps I shall be thought inconsistent in them. I was a warm advocate of paying large benefits in the past. I carried my favor for such a measure as far as I could and as far as my position would allow, without casting the veto against the decline, but since then I am convinced that we can not pay more than we have. We may point to the flattering condition of the treasury at present, and to the fact we have paid out but five hundred dollars; but, I tell you, we have had a large good luck, and, as the gentleman from Boston has said, men that needed assistance have declined to make application. I know I needed it. I was down on my back four weeks, and my sickness cost me seventy-five dollars for doctor's bill and medicine, and what I would have made. I could have claimed twenty-four dollars, but I did not see fit to make the application, and many men feel thus. Another thing which we have been lacking in. We have buried but one member of the Union, which was about one hundred and sixteen dollars. That is unparalleled in any association having, as we had, six to ten hundred members; and if dark days come on us, which God forbid they should, I tell you we will not be able to pay more than now.

The question being taken upon Mr. Flanagan's motion, it was declared lost.

Mr. Stover moved, as an additional clause, "That upon the payment of ten dollars per year, in annual quarterly payments, the member making such payment shall, in case of sickness, be entitled to the sum of ten dollars per week."

MR. MERRILL, of Maine.—How is that? ten dollars in addition to six?

THE CHAIR.—No; four dollars in addition to the six dollars, making it ten dollars in all. It is optional with the member whether he pays it.

MR. STOVER.—It leaves the matter just here—any member who pays ten dollars a year shall receive ten dollars during his sickness.

MR. FLANAGAN.—Can he exercise that option during sickness?

MR. STOVER.—Of course not. After he is taken sick he can not do it, of course. That would be very improper.

MR. WHEELER.—I think there should be some clause to cover that, because, as it is suggested, a member taken sick could go in and say, I proffer to pay the four dollars additional and receive the ten dollars benefit; and there is no clause to authorize the Directors to refuse that payment. I think there should be some clause by which the payment shall commence at some specified time.

MR. YEAKLE.—I would propose to amend by inserting, "providing the member shall commence paying the same within a month of the adoption of his amendment."

MR. STOVER.—My idea was, that at any time when members see fit to commence paying the sum, provided he is not already sick, they should be entitled to this benefit just so long as they continue to pay that amount. A member may not feel in condition to pay that amount within a month of the adjournment of this Convention, but at some future time he might become disposed to pay it, and yet not be sick. I would add, "provided that no extra benefits be paid in cases where the extra quarterly payments to the Treasury have not been made within at least two weeks previously to the member's illness."

MR. BLISS.—I would state that I am opposed to the amendment, but if it passes I want it to pass so that nobody can take advantage of us.

And the amendment was submitted, and lost.

MR. PARTRICK. (Stoneback.)—I move to amend Article VII., Section 2, Clause 1, to read as follows: “If any member refuse or neglect to pay either his Union dues or District fines, for the period of six months, he shall be suspended, and if he still refuse or neglect, after nine months, he shall be expelled.”

Which amendment was adopted.

MR. OLTMAN. of New-York.—I move to amend Clause 2 of the same section, to strike out the words, “From date of expulsion.”

MR. PARTRICK.—I would like to amend that by substituting the word “nine” for the word “six.”

MR. WHEELER.—I would like to ask whether “regular dues” is to be interpreted to mean all dues, both local and national, or whether it only means national dues. I think a member should pay all dues.

MR. PARTRICK.—It is understood it is all dues.

MR. YOUNG.—I don’t think this Convention has any authority over a District.

MR. WHEELER.—I don’t see why it has not as much authority over the one as the other. In the first clause it says Union dues and District fines; and if it is right in one place, it is in another.

MR. PARTRICK.—As I understand it, it means all dues. It is so understood by every body.

MR. WHEELER.—I take no exception to it. I only want a construction of the matter.

The amendments were adopted.

MR. REDDING. of New-York.—I move that Clause 1, Section 1, Article VIII., shall commence as follows: “Five or more operators in any place, city, or village, who are qualified for membership, shall, if they choose, constitute the nucleus of a District; and any place, city, or village containing two or more, or less than five operators, qualified for membership, shall,” etc., to the end of the clause.

Which amendment was adopted.

MR. REDDING. of New-York.—I move to strike out from Clause 2, of Article VIII., the word “Office,” and insert “Local District.”

Which amendment was adopted.

MR. EDWARDS.—I move that the following be substituted for Clause 8, Article VIII.: “All members of the Union residing within the jurisdiction of a District, must belong to one and the same District.”

MR. FLANAGAN.—I am glad that is brought up, for we have members all over the South; but in case of removal I should think it would make some little trouble.

MR. PRIEST. of Detroit.—I believe a member should have the privilege of choosing the District to which he will belong. The District I represent has a member residing in Buffalo, and they have one in Knoxville; and I believe if a member thinks the Detroit District is better than the one he would reside in, and therefore desires to remain in the Detroit District, he should be allowed to do so.

The amendment prevailed.

MR. WHEELER.—As we have recognized in the Constitution the offices of District Secretary and Treasurer, it will be necessary to amend it here. I propose to make Article IX., Section 1, Clause 1, read after the words, “District Director,” the words, “Secretary and Treasurer,” and strike out “Local.”

The amendment prevailed.

MR. EDWARDS.—I move the words “in August” be inserted after the word “Monday,” in Clause 1, Section 1, Article IX., of the Constitution, and all that part of the first sentence, after the word Monday, be stricken out, and the following substituted: “And will assume the duties of their several offices at the regular meeting in September;” and to substitute the words, “his Local District,” for the words, “each office.”

Amendments adopted.

MR. FLANAGAN.—I move to amend Article IX., Section 2, Clause 1, to substitute the words “five dollars” in place of “one dollar and twenty-five cents.”

Which amendment was lost.

MR. FLANAGAN.—I move to amend the clause to read “two dollars and a half” in place of “one dollar and twenty-five cents.” I think the payment is too small and too paltry. You can get into a negro-show for that, and take your girl with you. I think we ought to have a decent initiation-fee. If it is worth joining the Union at all, it is worth paying for.

The amendment prevailed.

MR. MAKLE (for Dibble).—I move to amend Article IX., Section 1, Clause 2, by striking out the words “Local Director,” and inserting the words “District Treasurer.”

Amendment adopted.

MR. PARTRICK. (Stoneback.)—I move to so amend Article IX., Section 2, Clause 2, that it shall read that the payments be monthly, or quarterly, “in advance.”

Which amendment prevailed.

And on motion of **MR. FLANAGAN**, the committee rose, with instructions to report progress.

And the Convention being come to order, the President in the chair,

MR. WRIGHT, (Chairman.)—Mr. President, I have the honor to report that the Committee of the Whole have been in session upon the Constitution, and have considered the same, but is not yet prepared to make a final report. I am, therefore, instructed to report progress, and ask leave to sit again.

And by virtue of the rule adopted, the Convention adjourned, the hour of adjournment having arrived.

The Convention resumed business at seven o’clock P.M.

The President in the chair.

And on motion of **MR. FLANAGAN**, resolved itself into Committee of the Whole.

MR. WRIGHT in the chair.

MR. WHEELER.—I move to amend Clause 3, Section 2, of Article IX., to read: “In changing his place of residence beyond the District in which he is enrolled, a member may be enrolled in another District, by presenting to the Director thereof a certificate of transfer, signed by the Director of the District from which the member comes, stating the standing of the member in the District, the amount of his dues unpaid, if any, with date of last payment, and such other information concerning the member as may be deemed necessary by the Director.”

The amendment prevailed.

MR. MCKENZIE.—I move to strike out Clause 4.

Adopted.

MR. OLTMAN.—I move the present Clause 5 be made Clause 4, and that Clause 5 read: “That each member of the Union admitted by and before the Convention held in 1864, and who has not yet secured a certificate of membership, may be furnished by an application to the District Director, who shall issue the same, provided the member be at the time in good standing.”

Which amendment was adopted.

MR. STOVER.—I move to amend Article IX., Section 2, Clause 1, by adding: “Which shall be issued by the District Director, on satisfactory evidence that the initiatory fee has been paid.”

Which amendment prevailed.

MR. REDDING.—I ask permission to go back to the first Clause of Section 2, Article IX., and to further amend as follows: That the words “District Treasurer or,” be inserted between the words “through the,” and “Local Directors.”

Amendment adopted.

MR. EDWARDS.—I move that Clause 5, Section 2, Article IX., be made to read as follows: “Any member in good standing, who may desire to withdraw from the Union, shall, upon application and rendition of his certificate of membership to the Director, receive from the Union,” etc.

Which amendment was adopted.

MR. PARTRICK. (for Mr. Stoneback.)—I move to amend Article IX., Section 3, Clause 1, to insert after the word “Union,” “shall commence after a membership of three months; and the liabilities under this Constitution shall commence immediately upon admission to membership thereof, and both liabilities and advantages cease, when a member,” etc.

Which amendment was adopted.

MR. YOUNG.—I move to amend Article IX., Section 3, Clause 1, to strike out all after the word “thereof.”

MR. EDWARDS.—I move that all that part of Clause 1, Section 3, Article IX., of the Constitution, after the words, “When a member,” be stricken out, and the following words be inserted, “withdraws, or is expelled from the Union.”

MR. YOUNG.—I will withdraw my amendment.

The amendment of **MR. EDWARDS** prevailed.

MR. YEAKLE.—I move to amend Article X., Section 1, Clause 1, to strike out from the pledge the words, “all things being equal.” The present wording allows a man having influence to use the influence for the benefit of his friend, be he a member of the Union or not. If these words are stricken out, it compels him to do the best he can for a member of the Union.

MR. STOVER.—I think that these words are superfluous. No two things can be equal. It is simply a matter of impossibility, and as long as these words are there, they furnish an excuse for a member of the Union to favor the appointment of a person who is outside of the Union, rather than one in it. I agree that the words should be stricken out.

MR. PARTRICK.—I say that the man who does not appoint one who is the superior of another in ability, although he be not a member of the Union, is not doing his duty. It is not his duty to himself or his company to appoint an inferior operator. If these few words are stricken out, one would be in duty compelled to employ any operator who is a member of the Union, although all things were not equal.

MR. STOVER.—We don’t say in this we will employ a member of the Union with half the capacity of a person outside.

MR. PARTRICK.—It says at all times, and the amendment will not leave it saying any thing about all things being equal. It takes into consideration no person outside the Union. I say that clause ought to be left in, otherwise a man can not do his duty to his employers conscientiously.

MR. STOVER.—As a manager of an office myself, if I find one not a member of the Union fully competent, and one a member and not competent, I should have no hesitation, and should employ the one not a member, and I should think I was acting consistently with this article, even if the words were stricken out. This simply makes it necessary we should give preference to a certain individual, providing he is capable of filling it.

MR. PARTRICK.—Will you tell me what injury it will do by leaving it in?

MR. STOVER.—We furnish an excuse to persons to advance a practice in opposition to the intention of the rule.

The amendment was lost.

MR. YOUNG.—I move to strike out all of Clause 1, Sec. 1, Art. XI., and to insert in lieu of it:

“It shall be the duty of the District Directors to forward to the editor of THE TELEGRAPHER a full list of all vacancies and changes in their several Districts, also the names of all unemployed operators, together with their qualifications, for publication.”

I claim, by the adoption of my amendment, it will not only be a benefit to the operator, but it will enable the Union to so conduct itself as to avoid heavy drafts upon its treasury, by making it the duty of the District Directors to publish all vacancies in their Districts and offices.

The amendment prevailed.

MR. YOUNG.—I move to amend Art. XIII., Sec. 1, Clause 1, to read:

“The District Director, with his council, shall constitute a committee to investigate the qualifications of members, and when called upon, furnish certificates of the same; such certificates to set forth in an absolutely correct manner the whole and particular qualifications of the members.”

MR. STOVER.—I move to amend Clause 1, Section 2, Art. XIV., to strike out “three fourths” and insert “two thirds.”

The amendment prevailed.

And the By-Laws being read by the Secretary :

MR. WHEELER.—I move to strike out from Clause 1, Sec. 1, Art. III., the words, “Local Director of each office,” and insert the words, “District Treasurer;” also strike out the words, “District Treasurer,” after the words, “Treasurer of the National Organization.”

Which amendment was adopted.

MR. WHEELER.—I move to amend Clause 3, Sec. 1, Art. III. of the By-Laws to read: “The District Director shall forward to the Treasurer of the National Organization the names of all subordinate officers and members elected in his District.”

Amendment adopted.

MR. WHEELER.—I move to insert as Clause 4 of the same article: “The District Treasurer shall notify the District Director when any member is six months in arrears,

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and shall give the Director any and all information that may be required relative to the dues of any member."

Amendment adopted.

MR. OLTMAN.—I have a little amendment I would like to offer if the Convention has no objection to going back. I should like to offer an amendment that the words "and postage" be inserted after the word "stationery" in Clause 2, Sec. 2, Art. V. of the By-Laws, and the word "and" after the word "books," be stricken out.

Which amendment was adopted.

MR. EDWARDS.—I move the words "of the Union and District Treasurers" be inserted after the word "Treasurers" in Clause 4, Sec. 2, Art. V. of the By-Laws.

Which amendment was adopted.

MR. PARTRICK, (for Mr. Stoneback.)—I move to amend Art. VI., Sec. 1, Clause 2 of the By-Laws; to insert after the word "expenses" "not exceeding one hundred dollars." I would notice that on one occasion the probable expense of a funeral will not be what it may be on another occasion, and there should be some check; the thing ought to be limited; a certain amount ought to be allowed, and I think one hundred dollars should make a decent funeral.

MR. PRIEST.—I think it might take more to bury a man in Chicago than in some small place.

MR. FLANAGAN.—I move then that every one move from the city when he is going to die.

MR. PRIEST.—I don't think the District officers would call upon us to pay more than is actually necessary. I should not think they would go to work and give a man a splendid funeral simply because somebody else has got to pay for it.

MR. PARTRICK.—You may think a funeral at two hundred and fifty dollars would not be extravagant, while I might think one hundred dollars sufficient. It depends altogether how a man has been "broughten up," and how he has been used to spend money. I think a very decent funeral can be had for one hundred dollars.

MR. STOVER.—I hope we shall get over this grave subject as soon as possible. I like the gentleman's amendment. I think it is well while we have a treasury to be careful to guard against raids upon it. I think it is well the sum should be defined and limited, and then if the District Directors can make it less without impropriety, they should do so.

And the amendment was adopted.

MR. REDDING.—I move that the words "District and," in the beginning of Clause 1, Art. VIII. of the By-Laws be stricken out, and the word "District," before the words "and office," be made plural, and the words last mentioned be stricken out, and the words, "Directors and their councils" be substituted for the words "general officers."

And the amendment prevailed.

MR. HAMMOND (President).—I move that Article IX. be stricken out.

MR. EDWARDS.—I move that the Ninth Article be stricken out and Article X. be made IX. I was instructed by my District to offer this amendment because—well, I don't know exactly for what reason except that it is unnecessary. We have perhaps finally concluded that if it was acted upon, we should not have many members in the Union.

MR. HAMMOND.—I wish merely to state that I think it is unnecessary. I think by it we are assuming to ourselves the duties and functions of telegraph managers themselves. I think it is entirely within their province to regulate that matter, and I think it has a bad effect to let it go out that we or any body have a habit of stealing messages in that way. For that reason I move it be stricken out.

The amendment prevailed.

MR. PRIEST.—I think an amendment should be made to Clause 5 of the next article. There may be two Local Directors in the same place.

MR. CHANDLER.—I move the words "Local Director" be stricken out, and "District Director" be inserted.

MR. STOVER—I move further to amend, to make the clause read "meeting of the Convention and the District Director in said place," etc.

MR. CHANDLER.—I accept that as a substitute for my amendment.

And the substitute was adopted.

MR. EDWARDS.—I move, as an additional clause to Art. X. of the By-Laws, the following:

"Clause 6. A paper shall be published by the Union, to be called THE TELEGRAPHER, to be issued as often as the President and the editor thereof shall deem advisable.

"The details of the publications of the paper to be decided upon by the President and the editor thereof, subject to the approval of the Convention.

"The editor of THE TELEGRAPHER shall also be Superintendent of Supplies."

MR. STOVER.—I am opposed to the adoption of that. I don't think it properly belongs in that place. It appears to me it would be well to recognize THE TELEGRAPHER as the organ of the Union by a section of the Constitution, and that supplementary matter of making him also supply agent, more properly belongs to the By-Laws. That is a matter for future consideration. I think if we recognize THE TELEGRAPHER, it should be done by an article in the Constitution, and that all provisions with regard to its publication and its editorship, should be a matter to be thought of afterward and placed somewhere else.

MR. YOUNG.—I would like to ask the chairman of the Committee on the President's Report, and also on Mr. Smith's report, at what time they think they will be able to make a report on those two documents?

MR. STOVER.—As being first appointed on the committee to which was referred the President's Report, I would state that if the Convention does not meet to-morrow until the time appointed, I believe the committee will be able to report then if I can get them together. I believe the report will be very brief, as most of the suggestions, if not all, have been acted upon.

MR. YOUNG.—The reason I asked the question is, that being through with the Constitution and the By-Laws, these committees can make their reports to-morrow; if they can make any new suggestions we might engross them in the Constitution and By-Laws, and all can come up for final action to-morrow.

MR. PRIEST.—I would like to ask, for my own information especially, if the gentleman has a right to ask that question when there is a matter before the Convention?

MR. STOVER.—I respectfully request that we stop talking in this way, and finish up the business. I don't believe this amendment should pass.

MR. PRIEST.—We provide for the election of the editor of THE TELEGRAPHER. What business have we to elect an editor if he is not recognized by the Constitution?

MR. STOVER.—We have a right to employ any thing and any body we please, and to pay them too. We have a right to elect a sergeant-at-arms in this room, and there is no need to say any thing about it in the Constitution.

MR. PRIEST.—If we receive a charter and THE TELEGRAPHER is not named in the

charter, how are we to hold the paper if the management desires to take it away from us?

MR. STOVER.—I think whenever that time comes we had better let him take it. If Mr. Smith chooses to run away with the property of the Association, let him run, and we will find another paper and another editor. But I can't conceive there is any danger of any thing of that kind.

MR. BLISS.—Unless we have this in the Constitution, in some legal form, we have no control over it at all.

MR. STOVER.—The gentleman is in error in supposing if this Convention, as the representative of the National Telegraphic Union, sees fit to go and put up a building somewhere, it is necessary to say we can hold such a building in the charter in order to prevent our holding it. We can prove, too, that the editors of that paper, and the acting publishers, have, at all times, held themselves responsible to the Association.

MR. CLARK.—It seems to me if any thing was inserted it would, to a great extent, nullify the act passed at the last Convention, called the Review Bill, because then it would seem to be a bill to amend the Constitution and By-Laws.

The amendment was lost.

And the "order of business" having been read by the Secretary,

MR. MCKENZIE, of California.—I move the last three words of the second order of business be stricken out, and there be inserted the words "by the Convention."

Amendment adopted.

MR. STOVER.—I move to amend the seventh order of business (election of officers) by making it number ten, and by changing all the others so as to make them read in the order so arranged.

Amendment was adopted.

And on motion, the Committee rose, and by its chairman, reported progress to the Convention, the President in the chair.

And on motion of Mr. Partrick, the Convention adjourned in course.

WEDNESDAY, September 18.

The Convention was called to order at ten A.M.
The President in the chair.

The minutes of the preceding meeting having been read.

MR. FLANAGAN.—I move the report of the Secretary be adopted excepting the two propositions of the President, providing two committees on the Secretary's and Treasurer's reports. These matters were not so referred.

MR. STOVER.—I can't state positively that the Corresponding Secretary's report was referred to the same committee which is to report upon the President's report, but I think so, and the President, overlooking that fact, appointed a special committee on the Secretary's report, but the Committee took the liberty this morning to make a report, if it was a liberty, and as I suppose it is their business to make that report, they will be ready to do so.

THE PRESIDENT.—If such be a fact, I can only apologize to the members who are on that committee. I having no authority to appoint them, it will not be necessary for them to report.

The motion prevailed.

MR. FLANAGAN.—I propose they be stricken from the record. It was a mere mistake, and it need not appear upon the record.

Mr. Stover, from the Committee on the President's report, reported as follows:

The Committee to whom was referred the President's Annual Report, beg leave to report:

The recommendation of the President to amend Clause 2, Section 1, Article III. of the Constitution, referring to the election of general officers, has been adopted by the Convention.

The recommendations to amend the several articles of the Constitution and By-Laws relating to District officers, have been acted upon by the Convention.

The recommendation to amend Clause 4, Section 1, Article II., has already been acted upon by the Convention.

Recommendation to amend Article V. Section 1, Clause 1, already acted upon.

Recommendation to amend Clause 5, Article IX., provided for.

To amend Sections 1 and 2, Article XI., already acted on.

To amend Article XII., provided for.

Recommendation providing for honorary membership, already acted upon by the Convention.

To amend Clause 2, Section 1, Article V., already acted upon.

On the suggestion of the President regarding the publication of THE TELEGRAPHER, the Committee recommend that a semi-monthly paper be issued in the place of the present publication, if, in the opinion of the President and Editor, it may be deemed advisable.

And the Committee would further recommend that the Convention vote a salary of two hundred dollars per annum, and twenty-five per cent of the yearly net profits.

And the Committee still further recommend the Editor of THE TELEGRAPHER be elected to the office of Treasurer, and shall also act as Supply Agent to the Union.

The Committee, in concluding their report, would respectfully recommend that the Convention vote its thanks to President C. W. Hammond of St. Louis, for the able, energetic, and faithful manner in which he has performed the duties of his office.

All of which is respectfully submitted.

J. W. STOVER, Chairman.

W. H. YOUNG,

J. B. OLTMAN,

J. J. FLANAGAN,

KENNETH MCKENZIE,

E. B. CHANDLER,

A. H. SEYMOUR.

MR. PARTRICK.—I move the report be accepted.

Motion approved.

MR. STOVER, from the same committee, reported as follows:

The Committee to whom was referred the Report of the Corresponding Secretary beg leave to report—

That the recommendations contained therein, having already been considered and acted upon by the Convention, your Committee have only to recommend that a vote of

thanks be tendered to Kenneth McKenzie, of St. Joseph, for the faithful performance of the duties of his position.

Respectfully submitted.

J. W. STOVER,
Chairman of Committee.

And on motion of Mr. Zeublin, of Indianapolis, the report was accepted.

MR. FLANAGAN.—I move a reconsideration of the vote by which the Treasurer's report was accepted and placed on file, and move that it be referred to a committee of three.

MR. STOVER.—I think if the Secretary's minutes are amended so as to incorporate the committee already appointed, they can report.

MR. FLANAGAN.—I would like to know when the committee was appointed.

MR. YOUNG.—By the President.

MR. PARTRICK.—I think I may say something about that. There was a committee of three appointed by the President when in the chair, sitting in Convention, without authority.

THE PRESIDENT.—It would be necessary to amend our minutes.

MR. FLANAGAN.—I am simply getting at the thing for the purpose of allowing our journal to be correct. I have already moved the report be referred to the committee appointed.

THE PRESIDENT.—There has been a committee appointed.

MR. FLANAGAN.—At what time?

MR. PARTRICK.—Yesterday morning.

MR. FLANAGAN.—I would like to know if the Convention asked for that committee at all.

MR. PARTRICK.—The Secretary read out the committee that was appointed.

MR. FLANAGAN.—But what authority had the President to appoint it, when the record says that the report should be received and placed on file?

MR. PARTRICK.—I know nothing about that.

MR. FLANAGAN.—Well, to make the minutes regular, I make a motion to reconsider the motion that was had on Monday.

MR. STOVER.—I second that, for we can get over this thing in a few minutes, and have it all correct; for the President can appoint the same committee, and the committee can report at once, as they are all ready.

The original motion prevailed.

The President reappointed the same committee.

Mr. Yeakle, from the committee, reported as follows:

Your Committee would state that the Committee could not interfere with the document, nor with the action of the Convention, in passing that resolution, therefore they can not make a long report.

CHICAGO, September 13, 1865.

MR. PRESIDENT AND GENTLEMEN OF NATIONAL TELEGRAPHIC UNION:

The Committee appointed on the Report of the Treasurer, find the Treasury in so excellent condition, that they deem it inexpedient to suggest any interference with its present system of conduct, being satisfied that no suggestion of theirs can increase its efficiency or improve its condition. It is suggested that the thanks of the Union be tendered to the Treasurer for his distinguished services during the past year. They therefore recommend its adoption, and ask to be discharged from further consideration.

Respectfully,

WILLIAM H. H. CLARK,
J. B. YEAKLE,
M. H. REDDING,
Committee.

MR. FLANAGAN.—I move the report be accepted and placed on file.

MR. CLARK.—The committee could have made an extended report, and probably could have suggested something regarding the Treasury, but for the action of the Convention. The Treasurer's report was accepted and placed on file; it was so ordered and declared correct, and the committee therefore could not interfere with the action at all.

MR. STOVER.—I hope some member will make some order in relation to the twelve hundred dollars in the treasury.

MR. FLANAGAN.—I move to take up the special order.

THE PRESIDENT.—If my memory serves me correct, there is no special order made; but the report of the committee of the whole can be taken up.

MR. Wright, from the committee of the whole, presented the report of the committee.

MR. FLANAGAN.—In order to facilitate the working of this Convention, I move that every thing be acted upon by articles.

MR. YOUNG.—My view is to allow the Secretary to read the amendments, and if any member wishes a separate vote he can ask for it at the time. If no separate vote is asked, it may be considered as unanimously adopted.

The Secretary then read.

MR. STOVER.—I move that Articles 1, 2, and 3, as amended, be adopted.

MR. YOUNG.—I think it is not necessary to take a separate vote on each of these sections.

MR. STOVER.—The Constitution requires that we have a three fourths vote.

MR. YOUNG.—If all of us agree to this, it is certainly a compliance—it is unanimous.

MR. STOVER.—I do not understand a negative consent as being a three fourths vote, but at the same time, if the Convention is of the opinion that is the better way to get along with the matter, I am perfectly willing that it should progress in that way, that where nobody objects it is to be considered as a unanimous vote. I withdraw my motion.

And the roll was called upon the amendment to Article III., Section 3, Clause 1, and it was lost by ayes 12, nays 17.

MR. YOUNG.—I move to amend the amendment to Article IX., providing that persons proposed for membership shall deposit with their application one dollar and twenty-five cents, to make it read two dollars and fifty cents.

The amendment thus amended prevailed, and the reading having been completed,

MR. FLANAGAN.—I had an amendment to offer to a certain point which I neglected or failed to hear read. It is in regard to requiring a member to be a member of the District in which he resides. I would therefore like to ask, What is the jurisdiction of a District? Is it the State in which the District is organized, or what part of the State is it? The District of Louisville extends all over the country nearly. I move to amend the amendment to Clause 2, Article VIII., so as to insert after the word "District" the words "after the member has been a resident of said District for the term of four months." I make this motion from the fact that some persons, either for temporary or permanent purposes, are sent to different parts of the country, and four months is

little enough time to give them to decide if they shall be away from the District in which they were enrolled at first. By the amendment as it now stands, every man is already a member of the District in which he is, although he may be only on a temporary errand.

MR. CLARK.—This word "jurisdiction" will have an ambiguous meaning there.

MR. FLANAGAN.—For that reason I asked the President what he would consider the limit of a jurisdiction.

THE PRESIDENT.—That is a question that is too heavy for me. We have members in California belonging to our District.

MR. CLARK.—In the first clause it says they must class themselves with some near District; themselves to choose the District.

MR. STOVER.—That has been changed.

MR. EDWARDS.—That was made city, town, or village.

MR. STOVER.—There was certainly a provision adopted here that all persons residing in the same District shall belong to the same District.

MR. FLANAGAN.—That is what I move to amend. I again ask what is the jurisdiction of a District; what are its limits, and how far are they bounded?

MR. STOVER.—That depends so entirely upon circumstances, it is impossible to define it. Each District has to settle that for itself.

MR. FLANAGAN.—That will be useless. It is unnecessary to say that a man is to join the District in which he resides, if you don't let him know what the District is.

MR. STOVER.—The headquarters of the District is established.

MR. FLANAGAN.—What is the place?

MR. STOVER.—The gentleman, I think, ought to understand it. If the headquarters in a town, city, or village is established there, I understand every person in that place has got to belong to that District, and is under the jurisdiction of the District officers, and he can not belong to a District a hundred miles away when District headquarters are within ten miles of him.

MR. FLANAGAN.—This man may be there for a temporary purpose, yet the Constitution will, as it is now, force him to become a member of that District.

MR. STOVER.—You propose to give him four months.

MR. FLANAGAN.—Yes, that is what I give. The headquarters of our District are in Louisville, and we have members scattered all over the country. What then is the jurisdiction of our District? Is it Kentucky, Tennessee, Georgia, Alabama, Missouri—anywhere?

MR. STOVER.—I don't see any difficulty about it. It appears to me if any operator chooses to belong to your District, if he is a resident of another place, and no District established, he has a right to do so, provided there is not already some person who is a member of another District. In that case he has to go to that other District. For instance, if at any time enough of members are at a place to establish a District, the members that belong to your District would be transferred to that.

MR. FLANAGAN.—Should they not organize?

MR. STOVER.—They belong to your District.

MR. CLARK.—There is a necessity this should be very explicit. If five members can be found in the same office that belong to different Districts, I understand they must form a District. In Cincinnati, the other day, I found eight members, I believe, who belonged to Philadelphia, Washington, Baltimore, and some to other places, and they had not come to the requirements of this article. It is necessary it should be very explicit that it may either compel them to form a District or to compel them to join with a nearer District.

MR. STOVER.—We have passed that already, and they will be compelled to unite themselves in some one District; but these matters can not be perfectly understood until the Constitution is revised and circulated, when it will be the duty and business of the District Directors to see that it is carried out.

MR. PARTRICK.—I don't see by what authority this Convention is to decide what District I shall belong to.

MR. CLARK.—The Constitution was founded before the Union was established, and all of us have agreed to abide by it.

MR. FLANAGAN.—I suggest that we define the jurisdiction of each District, as in a State, or so on, as may be agreeable and proper.

MR. STOVER.—There is one objection to that. There are members in the Southern States without enough adjacent one to the other to make a District, and if the District is limited to the borders of a single State, they are left out in the cold.

MR. FLANAGAN.—I was going to make provision for them that they should become members of the organization in the nearest State. I make this more as a suggestion, but I think, before this Convention adjourns, it should make some provision for this.

MR. STOVER.—It appears to me there is a way to get over the difficulty. Let us put in a clause that all persons members of the Union, residents of places where District organizations do not exist, shall belong to the nearest District organization. That will cover the whole ground.

MR. CLARK.—That was just the question brought up, the question of the meaning of the word jurisdiction. That is what we are trying to come at. If you can define it as belonging to the nearest office, it may do.

MR. STOVER.—Does not the gentleman think my proposition defines it in that way?

MR. CLARK.—I don't see it, because it is a repetition of the word jurisdiction. I take your motion to amend in full.

MR. STOVER.—I will move to amend. Go on.

MR. CLARK.—Even if this is defined, it will make trouble. In the Baltimore District they have members in Ohio. The Washington District has members in New-Orleans, men who wanted to know whether they would belong to Washington, Louisville, or where. At present this thing can not be closely limited and defined, or just as soon as the Southern States receive acquisitions of telegraphers, they will be compelled to change their Districts.

MR. STOVER.—What objection is there to that?

MR. CLARK.—It will cause great trouble.

MR. FLANAGAN.—I do not object to the clause as it now stands. I think they had better let members have a choice as to their own District as long as they pay their dues and fines; let them be members of the common Union.

MR. STOVER.—I think that is very objectionable.

MR. PARTRICK.—I would say that it is my idea to strike out the latter part of the article of the Constitution—that is to say, after the word District, and make it read: "After offices have made choice of the District in which they wish to be classed, notification must be sent to the Director of that District."

MR. YOUNG.—I think that is open to many objections—that is, the District Director

has to correspond with members always in motion, and he has to notify all the members.

MR. CLARK.—Wherever a single member belongs, he has the privilege of choice of belonging to any District, while if they be two they must belong to some one District.

MR. STOVER.—But it appears to me this matter of allowing a member at New-Orleans to belong to Washington is open to many objections. It appears to me it makes correspondence with the member very difficult and tedious and uncertain. Then again if that member is sick and wishes assistance, it is difficult, very difficult, to ascertain any thing of the merits of his case. I think that the proper management of the Union demands that we should insist that members outside of the regularly established Districts should attach themselves to the nearest District organization, because, of course, it would be less difficult for the officers of the organization to look after that member than it would for an organization a thousand miles away. I am, however, perfectly willing to let the matter rest if the Convention desires.

MR. PARTRICK.—Nobody doubts it would be better for members to belong to the nearest District, but I would like to know what right this Convention has to say that I should belong to a particular District.

MR. STOVER.—Because we have a right to legislate for the interests of the institution.

MR. PARTRICK.—I am a free agent, and have a right to choose where I shall belong, and I don't think you can impose upon me the necessity of going to a certain place where I do not choose.

MR. STOVER.—I go as far as the gentleman does in insisting upon man's personal rights; but this is quite a different matter. Of course, if, as a Union, we vote an amendment to the Constitution, or reestablish the Constitution, clearly setting forth it will be necessary for any member of the Union to be connected to the nearest District organization, they will become members of the Association with that understanding. The member will know the provision of the Constitution, or he should; and if he does not, it is his fault; and of course he must abide by the Constitution and the rules that we adopt. I don't see that there is any abridgment of personal freedom about that.

MR. PARTRICK.—Suppose that in the District you force him into there is a man of a character that he don't like. He does not want to come in with him. He objects to them and they object to him, and he is precluded from taking part in the matter of their labor; hence he would prefer to go to another District. You would compel him to associate with them against his will. I say that it is not right nor just, and I don't see how you can make it so.

MR. STOVER.—We don't propose any such state of affairs shall exist in such organizations. If a case of that kind should happen to him, it is the member's duty—if the person who has that ill-will, or who conceives the District to be mismanaged, or who knows, possibly, that the District organization is opposed to him, it appears to me to be his bounden duty to act in that organization, and, so far as may be possible, to improve the state of things. When they get to dislike me, it will not make the least particle of difference with me. I shall still act and exercise my rights as a member; and if I can not bring them to my aid in extinguishing ill-feelings and error, I will submit gracefully. The question being on the amendment of Mr. Flanagan, it was adopted, upon a call of the roll, by ayes, 26, nays, 8.

MR. STOVER.—I will offer the following amendment to Article VIII., as an additional clause: "All members of the Union, residents of cities or towns where no District organization exists, must be attached to the nearest District organization."

MR. CLARK.—The Washington District organization is in New-Orleans. If a member there desires to join, could he join that organization?

MR. STOVER.—Not at all. It would be pretty easy for a member to determine whether St. Louis is nearer than Washington. The District organization of Washington certainly does not exist in New-Orleans. These organizations are not wandering arrangements, that can take up their headquarters and travel. The District organization of Boston is in Boston, and there it remains, let who will leave it.

MR. CLARK.—When I tell the gentleman five members of the organization are there in New-Orleans, I think I am right in saying the District organization is in New-Orleans.

MR. STOVER.—That is a matter of no importance, however, but I can easily change it to say the headquarters of the District.

MR. YEAKLE.—I think, as the Constitution reads, it is obligatory on those five members to establish a District organization.

The amendment was adopted, upon a call of the roll, by ayes, 22, nays, 3, and the Convention adjourned in course.

The Convention met at half-past two p.m., the President in the Chair.

Mr. Edwards, from the Committee on Report of the Editor of THE TELEGRAPHER, and the series of resolutions offered by Mr. Stover, of Boston, made the following report:

"CHICAGO, Sept. 13, 1865.

"The Committee to whom was referred the Editor's Report and a series of resolutions offered by Mr. Stover, of Boston, beg leave to report as follows: We suggest the amendment of Section 6 of the Act adopted at the last Convention, providing for the publication of THE TELEGRAPHER, by striking out the words, 'A true transcript from the District Secretary's book,' and inserting instead the words, 'A fair and impartial report of such portion of the proceedings of each and every meeting of their District, as the District Director and his Council may deem of general interest and proper for publication.' We are also in favor of the editor of THE TELEGRAPHER being allowed to make his reports quarterly, instead of monthly, as prescribed in the original Review Bill. We also suggest that the editor of THE TELEGRAPHER be instructed to cause to be printed five hundred extra copies of such number of THE TELEGRAPHER as he may deem best, to be distributed among the Directors of the several Districts, and by them used in such a manner as in their judgment will best secure an increased circulation of said paper.

"We favor the semi-monthly publication of THE TELEGRAPHER, as recommended in the Editor's Report.

"We recommend that the editor of THE TELEGRAPHER be made Superintendent of Supplies, with a salary of fifty dollars per annum, payable quarterly, and that he receive, for his services as editor, the sum of four hundred dollars per annum, payable quarterly.

"In regard to the series of resolutions offered by Mr. Stover, of Boston, and referred to your Committee, we would suggest the adoption of the first and second. The third being rendered unnecessary by a suggestion of your Committee, we therefore recommend it be not adopted.

"Respectfully submitted.

J. L. EDWARDS, Chairman.
T. W. PRIEST.
H. W. WHEELER.
A. H. BLISS.
A. L. WHIPPLE."

Which, on motion of Mr. Crain, of St. Louis, was received and adopted.

MR. STOVER.—I move that we adopt the Report of the Committee of the Whole in reference to the Constitution and the By-Laws as a whole. I would move that the Constitution and By-Laws, and that all amendments to the Constitution and By-Laws passed by the Committee of the Whole, and adopted by the Convention in parts, shall be adopted as a whole, and that the amendments be parts and portions of the Constitution and By-Laws for the government of this Union.

And, upon a call of the roll, the Constitution, as amended, was adopted as a whole, *nem. con.*

MR. STOVER.—I further move that the Recording Secretary shall be instructed and directed to attend to the supervision and publication of one thousand copies of the Constitution and By-Laws, as amended by this Convention, the expense to be paid by the Treasurer on an order from the President, each District ordering copies, to pay for them a proportionate amount of the actual cost of such publication.

MR. FLANAGAN.—I should object to that. The Constitution and By-Laws are the property of the Union, and I think the members are entitled to them, to be paid for out of the general fund, as we have heretofore paid for them.

MR. STOVER.—I have no objection to that, to strike out all that is not in conformity with that view.

MR. EDWARDS.—It seems to me it would be more proper to have it done by the Editor of THE TELEGRAPHER.

MR. CLARK.—I would offer, as a substitute, that the Recording Secretary and assistant of this Convention, supervise the Constitution and By-Laws as revised and amended, and forward the same to the Editor of THE TELEGRAPHER for publication.

MR. FLANAGAN.—I move, as an amendment, that the President be authorized to have printed one thousand copies of the amended Constitution and By-Laws, to be taken from the short-hand report to be furnished by the official reporter of this Convention.

MR. STOVER.—I understand that the President will be permitted to adopt such measures for securing such a complete revision as he sees proper.

MR. FLANAGAN.—To meet any difficulty, I move that the President be authorized to have one thousand copies of the By-Laws and Constitution printed—the revision to be from the most approved sources—the same to be at the expense of the association, and to be paid for by the Union.

Which last amendment was adopted *nem. con.*

MR. YOUNG.—I move that it be

Resolved, That the Editor of THE TELEGRAPHER (with the advice and consent of the President) be, and he is hereby directed to purchase four thousand envelopes, and cause the words, "National Telegraphic Union," to be printed, in neat and tasteful type, at the top of the same; and supply all the General Officers and District Directors with a number sufficient to properly carry on the duties of their several offices; and also to keep the supply good at all times; and,

Resolved, further, That the money for the payment of the same be drawn from the Treasury in the usual manner.

MR. WHEELER.—It strikes me as being entirely unnecessary, as at the last Convention a similar resolution was adopted, with instructions to keep the supply good at all times.

MR. YOUNG.—I think I am right. That resolution was offered at the last Convention, but it did not pass. There were some serious objections made to it, and it did not pass; but the envelopes were furnished by order of the President.

MR. WHEELER.—That can be easily ascertained by referring to the record.

THE PRESIDENT.—I will state, that I ordered the envelopes printed upon my own responsibility. I thought they were needed, and I did not think we had any right to use the property of our companies, or that we ought to do so. Furthermore, I believed we should show that we had an individuality of our own.

And the resolution was adopted.

MR. YEAKLE.—I have a resolution to offer:

Whereas, Some of the Districts have allowed themselves to be drawn into useless controversies with certain institutions, purporting to give instruction in the art of Telegraphy, a controversy calculated to give to the Union an unenviable notoriety;

Resolved, It is the opinion of the Convention, such arguments should be discounted by every member of the Union, believing no good can result therefrom; that we have nothing to fear from the actions of such colleges; that their own prosperity will eventually prove their ruin.

And the resolution of Mr. Yeakle was adopted, by ayes twenty-five, nays two.

MR. PARTRICK.—Yesterday, I asked for information in relation to a member of the Philadelphia District. Some of the members have a different opinion as to whether he, being insane, is entitled to the same dues as one who is ordinarily sick. I would like the views of the Convention, so that I may be able to report. I will state, for three months he has been off and on in the lunatic asylum. When he was taken, he was in good standing, although he had not been a member more than two or three months.

THE PRESIDENT.—I would like to say a word on that. If the party does not make the application, I do not see how he can receive the benefit.

MR. STOVER.—We have changed that.

MR. WHEELER.—That will not cover the past.

MR. PARTRICK.—I consider it very unjust. If a man was taken down with the typhoid fever, and became delirious, and could not ask, what would you do? would you see him suffer, and not pay the money? I would like to know the sense of the meeting?

MR. FLANAGAN.—If a man is a lunatic, he is certainly very sick; so sick, that I would not like to be in his place.

MR. STOVER.—How much is due that party?

MR. PARTRICK.—I think, about fifty dollars—not quite so much, perhaps. Will the President put the question to the Convention?

THE PRESIDENT.—How shall I put the question, unless the gentleman offers a resolution, declaring the sense of the meeting?

MR. PARTRICK.—I move that the sense of the meeting be taken as to whether he is entitled to receive dues or not.

MR. FLANAGAN.—I move the case referred to be considered favorably by the Convention, and that he be deemed entitled to the full benefits of the Union.

And the motion was approved as the sense of the Convention, *nem. con.*

MR. FLANAGAN.—I move that it be

Resolved, That in the opinion of the Convention, female telegraph operators, whose qualifications are equal to the requirements of the Constitution, are entitled to membership in the Union."

I don't think the subject needs any discussion. I think that thing can't need any dis-

cussion at all. The Constitution says, all who are sound operators of printing, or paper operators of three years' standing, are entitled to membership, and don't say if it is black or white, female or male. In Savannah, Georgia, there is a black man, who is a perfect, sound operator.

MR. PARTRICK.—I have never heard of the case, and I lived down there for many years. I know of one, in Macon, Georgia, who is a mulatto, who, I think, is the making of a good operator.

MR. FLANAGAN.—I urge this, because if ladies are good operators, and some of them are, it seems to me they are just as competent to be members of the Union as we are.

MR. STOVER.—I would like to ask if he considers that the passage of the resolution would make it obligatory on the District Director to admit them.

MR. FLANAGAN.—Certainly not.

MR. PARTRICK.—I don't see it in that way. It don't say telegraph operators. It is operators, and according to that you might bring in operators of any class. It says nothing in that resolution but will allow sewing-machine operators to come in.

MR. STOVER.—I have something to say in opposition. I hope no resolution of that kind will be passed here. If it does pass, it will go forth as the sense of this Convention, that female operators should be placed on the same basis as male operators, be admitted to the Union, and entitled to all its benefits and advantages. It appears to me this organization, from what I have heard of its history, has discussed that matter most fully, and that it was their opinion that female operators were no honor to the profession. I wish to state it, as my individual opinion, that female operators are no honor or ornament to the profession, and that the whole spirit of our action in this Convention and in the past, has been to do all in our power to elevate the profession; and we have guarded it, as much as possible, from admitting any persons, male or female, into the Union, who would not be an honor to it. So far as my experience goes, as to female operatives, it is this: while, as a class, they are highly respectable, yet, as operators, they are no honor to the profession. For this reason, more than any other: because their advantages in early life, and their training, is not such as to give them an acquaintance with business matters generally; the result is, constantly making blunders to such an extent, that I know every telegraphic superintendent who has had them employed on their lines in positions of importance, has found that they were not competent to perform the duties; and, as fast as possible, they are weeding them out. I trust we shall do nothing to bring them into the Union. . . . I don't want to express my views at great length, because I deem it unnecessary.

MR. PARTRICK.—I move to lay that resolution on the table.

MR. FLANAGAN.—I ask you to withdraw the motion to lay it on the table, and take a vote on it.

MR. PARTRICK.—I withdraw.

And the vote being called, the resolution was negatived, by ayes five, nays twenty-one.

MR. MERRILL, of Maine.—I propose for adoption the following:

Whereas, It is the sincere desire of this Convention to do every thing in its power, both collectively and individually, to elevate the character of the profession, as well as to assure all with whom we may have business relations, that the objects for which we formed and still continue this organization, are laudable, praiseworthy, and tending, in their aims, only to the best good of all parties concerned; it is hereby

Resolved, first, That no person should be admitted to membership, in the Union, who is notoriously addicted to the use of intoxicating liquors, or who is the slave of any gross immorality.

Second, That great care should be exercised by those having charge of investigations into the character and qualifications of applicants for membership, in order that only those who will be likely to prove an honor to the profession should be admitted.

Third, That we do hereby declare it to be our decided opinion, that our interests, the interests of our respective companies, and the interests of the telegraphing public, are identical; that, one can not suffer without causing suffering to the others; and that it is, therefore, our determined purpose to seek, by all legitimate means, not only the advancement of the profession generally, but to increase, by the exercise of honest and earnest efforts on our part, the reliability of telegraphic communication.

I would like to say a word or two on the subject of these resolutions. I come here as the representative of a District, without instructions, yet I think that I am acquainted with the views and feelings, of a majority at least, if not all of the members, of my District; and I believe they would agree with me, that the spirit embodied in these resolutions is about right—that it would harmonize with their feelings. I have seen a great deal, and have experienced a great deal of inconvenience and trouble from the use, by operators, of intoxicating liquors. I have seen those, and been in their company, who have, by the excessive use of ardent spirits, been at times, certainly, a perfect nuisance, not only to the office but to business, and damaging to the character and reputation not only of the company, but of the office with which they were connected; and if we can, by any effort on our part, or by any expression of opinion, do away with this feeling, we certainly, by so doing, elevate the character of the profession. Although I profess to be a temperance man, and not undertaking to deliver a temperance lecture, I merely wish to throw out these views for the good of the Union. I am much attached to the District I belong to, to the Union, and to the profession. It is a sort of life business with me, and any thing we can do to elevate the character of the profession, either by increasing the mental or the moral qualifications of the members or ourselves, will be likely to produce great good. Then, in relation to the third resolution, although the sentiments embodied there are to a great extent embodied in the preamble to the Constitution, and perhaps it is not necessary to refer to them here; yet it seems to me it might be the means of doing good. The ideas entertained by some prominent telegraphers is, I have understood lately, that although the objects which we profess to entertain are good, yet that they may be perverted; that there may be designing men in the Union who will attempt to pervert the objects for which the organization was formed. I do not entertain that opinion myself, because I think there are good enough men to counterbalance all this; yet it seems to me it would do no harm to reassert those principles. Our position, as I understand it, is not a position of defiance, and we know that conciliation is necessary in all branches of business. No organization can stand out in defiance of others, and certainly we do not wish to do it. I think, then, if we can, it will be well to assert, as we do in this resolution, that our position is a conciliatory one. In that way, I feel impressed with the belief that our interests, and the interests of our respective companies, with which we are interested, and of the telegraphing public, are one and the same; that one can not suffer without the others suffering to a great extent. I hope the Convention will adopt these resolutions unanimously. Certainly, if I had any idea that there would be any opposition, I would not present them.

The preamble and resolutions were adopted *nem. con.*

MR. STOVER.—Gentlemen will remember the suggestion made in the report of the committee on THE TELEGRAPHER, and also the suggestion in the report of the Editor of THE TELEGRAPHER. I have embodied them in a resolution, which I will read. Amend the act establishing THE TELEGRAPHER by adopting the following section: The Editor of THE TELEGRAPHER shall receive for his services the sum of two hundred dollars per annum and twenty-five per centum of the net profits of the publication of said paper after the payment of the above-named salary. The Editor of THE TELEGRAPHER shall also act as general Supply Agent, with a salary of fifty dollars.

MR. YOUNG.—Yesterday afternoon I telegraphed Mr. SMITH, thinking perhaps he might have some objection to receiving the treasurership, asking him if he would accept the position of Treasurer, together with editor of the paper. I received an answer from him this morning, stating if the salary was not less than six hundred dollars, and he also took charge of the supplies, he had no objection.

MR. STOVER.—What does he mean? Is that for the single position of Treasurer?

MR. YOUNG.—For the three offices combined. I think we can't do better than that. I think we had better pay him the six hundred dollars.

MR. PRIEST.—The committee on the Editor's report reported favorably to paying Mr. SMITH, or any other editor of THE TELEGRAPHER, four hundred dollars for acting as such editor, and fifty dollars for acting as supply agent or superintendent—that would be four hundred and fifty dollars. If he gets four hundred and fifty dollars, the Treasurer's salary would make it about six hundred dollars.

MR. PARTRICK.—Six hundred and fifty dollars.

MR. YOUNG.—I will amend by inserting three hundred and fifty dollars in place of two hundred dollars, and striking out the twenty-five per cent.

MR. PRIEST.—I think the twenty-five per cent would be a little more to our interest. He might not, with a steady and stated salary, work for it so well as if he had a chance of getting more by more work.

MR. YOUNG.—The twenty-five per cent I think would place him in an awkward position. I believe it is the intention to improve that paper as much as possible in the course of the next year, and there will be some considerable expense, and if he went to work as he should, perhaps some would think he was not acting for the general but for a selfish interest. I think we had better make the salary three hundred and fifty dollars.

MR. STOVER.—I stated first, I believe, I was opposed to paying that amount, but I am willing to accept the proposition of the gentleman, and I would like to have my motion so amended; but while I do so, I have some considerable doubt whether that paper will pay its way this year. Last year it has returned in but two hundred and thirty-nine dollars. If we vote this as amended, it imposes upon every member of this Committee this duty, to go forth from hence resolved to do every thing in his power to increase the circulation of this paper, for in that way only can I conceive how we are to meet the increased expense.

MR. YOUNG.—The increase will be only three hundred dollars.

MR. EDWARDS.—It would be as well to state how these sums are to be paid. I would suggest they be paid quarterly.

MR. STOVER.—I suggest the Secretary add "payable quarterly by drafts made by the President on the Treasurer."

As amended, the amendment prevailed.

MR. EDWARDS.—I move that the publication of THE TELEGRAPHER be semi-monthly instead of monthly.

MR. STOVER.—I move it be resolved that we strongly favor the publication of a semi-monthly paper in the place of the present publication, if in the opinion of the editor and the President it may be deemed advisable.

MR. EDWARDS.—I withdraw my motion.

The resolution was adopted *nem. con.*

MR. EDWARDS.—I move that the Editor of THE TELEGRAPHER be allowed to render his reports quarterly instead of monthly, as prescribed in the "Review-Bill."

Which was adopted.

MR. EDWARDS.—I move that the Editor of THE TELEGRAPHER be instructed to cause to be printed five hundred extra copies of such number of THE TELEGRAPHER as he may deem best to be distributed among the Directors of the several Districts, and by them used in such a manner as in their judgment will best secure an increased circulation of said paper.

Which was adopted.

MR. EDWARDS.—I move an amendment of Section 6 of the Act adopted at the last Convention, providing for the publication of THE TELEGRAPHER, by striking out the words "A true transcript from the District Secretary's book," and inserting instead the words, "A fair and impartial report of such portion of the proceedings of each and every meeting of their District as the District Director and his counsel may deem of general interest and proper for publication."

Which was adopted.

MR. WHEELER.—I move that the resolution referred to the committee on THE TELEGRAPHER from Mr. Stover be taken up.

The Secretary read the resolutions as follows:

Resolved. That as the principal object of the publication of THE TELEGRAPHER is to have an organ for the Union, in the opinion of this Convention the reports of the proceedings of the District meetings should be published as forwarded by the Directors of the several Districts, and the provision to this end as incorporated in the original act establishing the review be strictly adhered to by its editor.

Resolved. That in the opinion of this Convention THE TELEGRAPHER should be conducted solely and entirely in the interests of the Union, and no articles open to the charge of partiality or favoritism for any telegraph company should be admitted to its columns.

Resolved. That if any editorial articles on the election of officers of the Union are published in THE TELEGRAPHER its columns should be open to all communications on the same subject from any member of the Union.

MR. WHEELER.—I move the first be adopted, and that the rest be stricken out, as that has been acted upon in a different way.

MR. FLANAGAN.—I move to lay the subject on the table.

MR. STOVER.—I hope that will not be done. It will take but two moments to act upon it.

And the resolutions were laid upon the table by ayes 18, nays 12.

MR. FLANAGAN.—I have a resolution which I know will be unanimously adopted. I will read it:

That the thanks of the Convention be and are hereby tendered to Mr. J. C. UPHAM, Re-

cording Secretary of the Union, for the able and competent manner in which he has performed the duties of his office.

Resolved, That we regret the absence of Mr. UPHAM, and hereby tender him the heartfelt sympathy of each and every member of the Convention for the recent affliction which has bereft him of a dear and beloved parent, and prevented his attendance at this Convention.

Resolved, That a copy of these resolutions be forwarded to Mr. UPHAM by the Secretary of the Convention.

MR. FLANAGAN.—I have another resolution of the same sort:

That the thanks of this Convention are due and hereby tendered to the members of the press of this city for their attendance at the sessions of this body, for the kindly and complimentary manner in which they have referred to the National Telegraphic Union and profession generally, and for the careful and extended reports of our proceedings which they have published from day to day.

MR. FLANAGAN.—I now move that the Treasurer be requested to confer with the chief officers of the Nashville and Rochester Districts, and find out if they intend to continue as members of the Union.

Motion adopted.

MR. CLARK.—I move it be resolved that the attention of District Directors should be specially paid to Article VIII. of the Constitution, in reference to the particular District to which members of the Union should attach themselves.

Which resolution was adopted.

MR. REDDING.—I move that the thanks of the Convention are due to Mr. J. H. VESTAL, Recording Secretary *pro tem.*, and Mr. T. W. PRIEST, his assistant, for the faithful, prompt, and able manner in which they have performed the arduous duties of their offices.

Which was approved *nem. con.*

MR. FLANAGAN.—I move it be resolved that the thanks of the Convention are due and are hereby tendered to Mr. C. W. HAMMOND, President, W. H. YOUNG, Vice-President, JAMES PARTICK, Treasurer, J. C. UPHAM, Recording Secretary, K. MCKENZIE, Corresponding Secretary, and L. H. SMITH, Editor of THE TELEGRAPHER, for the prompt, faithful, able, and energetic manner in which they have performed the duties of their respective offices.

Resolved, That a copy of the above resolutions be furnished to each of the above-named gentlemen by the Recording Secretary.

MR. FLANAGAN.—I move that a vote of thanks be tendered to Mr. E. B. CHANDLER and to the members of the Chicago District for their exertions in behalf of our comfort, and for the more than complete arrangements they have made to enable us to conduct our business.

Which was adopted.

MR. CHANDLER, of Chicago.—Mr. President and gentlemen of the Convention, in behalf of the Chicago District, I desire to return you my sincere thanks for the vote of thanks which you have thus seen fit to pass. It has given us a great pleasure to have you thus meet in convention in our city, and to show our pleasure, we have sought to do our best to so arrange for your sessions and for your comfort as should meet your inclinations. We are pleased to infer from the manner in which you have now expressed yourselves on the subject that we have succeeded, at least to a reasonable extent, in carrying out our purpose.

MR. RICE.—I move that the next annual convention be held at the capital of the Empire State, Albany, New-York.

THE PRESIDENT.—That is not in order now.

MR. FLANAGAN.—I will present for adoption a form of transfer:

DISTRICT,
....., 186.....
This is to certify that A..... B..... is a
member in good standing of this District, and has paid his dues to
186.....
District Director.
.....,
District Secretary.

And the same was adopted *nem. con.*

MR. FLANAGAN.—I now move that the same be printed by the Supply Agent, five hundred copies on small cards, for distribution.

Motion adopted.

MR. STOVER.—I move that it be voted that the Executive Committee be requested, at such time and in such manner as they may deem proper, to fully advise the public generally of the swindling character of certain institutions styled commercial colleges, to perfect students in the art of telegraphing.

Which was, on motion of Mr. Flanagan, laid upon the table.

And on motion of Mr. Flanagan the Convention proceeded to the election of officers.

Mr. W. H. Young presiding.

Mr. Oltman nominated for President C. W. Hammond.

Mr. Robinson nominated W. H. Young.

Mr. Priest nominated J. J. Flanagan.

Mr. Yeakle nominated J. W. Stover.

The Chair appointed Messrs. Chandler and Wheeler to act as tellers.

A ballot being had, the tellers reported as follows:

For President.—C. W. Hammond, 28; J. J. Flanagan, 3; J. W. Stover, 1; W. H. Young, 2.

Mr. C. W. Hammond, having received a majority of all the votes cast, was declared duly elected.

And on motion of Mr. Wright the election was declared unanimous.

MR. HAMMOND.—I suppose I am the last one of whom you would expect any thing like a speech, but if you were ever placed in the position that I am you would like to speak. Commencing with no relatives or friends, and if you had as hard a time as I have to get on in the world, and then find yourself growing and growing in favor with your fellow-men, with the men of your profession, you would find how grateful it is. You will have to feel this before you can understand how I feel toward you for this kind expression of confidence in me by electing me over so many other gentlemen so much better qualified. I will not deny that I wanted the place. I took it a year ago and thought I could devote more time to its duties than I could. I went back to St. Louis and bought some property, and found that I could not make the payments unless I went to work myself. I accepted a situation with the Western Union Company, to get even with the world. Through working nights and days, I have gotten about five hours of the twenty-four of my time to myself, and I have thus been able to get square again. I think then in the future I shall be able to do more. For that reason I wanted the place. I wanted to show I was capable of doing more than I have done. I thank you, gentlemen, from my heart, and I regret that I have no better command of language to make myself better understood. I hope you will take for granted what I ought to say.

The Convention then balloted for Vice-President, and the tellers made the following report:

For Vice President.—W. H. Young, 18; J. C. Upham, 6; Robert J. Black, 8; W. H. Clarke, 2. Total, 29; to elect, 15.

No election.

And there being no election, a second ballot was had.

The name of J. C. Upham being withdrawn from the canvass by Mr. Stover.

The tellers reported as follows:

Vice-President.—W. H. Young, 21; R. J. Black, 8; blank, 1.

W. H. Young elected.

Mr. W. H. Young being declared duly elected, on motion of Mr. Clark the election was made unanimous.

MR. YOUNG.—Mr. President and gentlemen of the Convention, it is with great pleasure I again have the opportunity of returning my sincere thanks for this renewed expression of confidence. I deem it unnecessary for me to say more, excepting that I shall endeavor, as I have done before, to do all my duty.

The Convention then proceeded to the election of Treasurer, and a ballot was had with the following result:

For Treasurer.—L. H. Smith, 28; James Partrick, 2.

Mr. L. H. Smith being declared duly elected, on motion of Mr. Partrick his election was declared to be unanimous, and the Convention proceeded to the election of Recording Secretary.

A ballot was had with the following result:

For Recording Secretary.—J. C. Upham, 21; E. B. Chandler, 2; W. H. H. Clarke, 3. Mr. J. C. Upham being declared duly elected, on motion of Mr. Vestal the election was made unanimous.

The Convention then proceeded to the election of Corresponding Secretary.

A ballot was had with the following result:

Corresponding Secretary.—K. McKenzie, 4; C. C. Robinson, 3; M. D. Crain, 1; A. H. Seymour, 5; S. P. Peabody, 17.

Mr. S. P. Peabody being declared duly elected, on motion of Mr. Partrick the election was declared unanimous.

And on motion of Mr. E. B. Chandler, L. H. Smith was elected Editor of THE TELEGRAPHER by acclamation.

MR. RICE.—I move it be resolved, that the next Annual Convention of the National Telegraphic Union be held at the capital of the Empire State, Albany, New-York.

MR. YEAKLE.—I move to strike out all after the word "held," and insert "in the Monumental City, Baltimore."

MR. WHEELER.—I am directed by the District I represent to respectfully invite the Convention to meet at Boston. I would move to amend the amendment, to strike out "Baltimore" and insert "Boston."

And on motion of Mr. Stover the several motions were laid upon the table.

MR. STOVER.—I move that we now proceed to ballot for the selection of a place to hold the next Annual Convention.

And the Convention proceeded to ballot.

The Chair appointed Messrs. Chandler and Wheeler as tellers.

The tellers reported as follows:

Votes cast, 80; necessary to choose, 16. Baltimore received 13 votes, Boston received 8, Albany received 8, and San Francisco received 1.

And no selection having been made, a second ballot was had, with the following result:

Baltimore received 18 votes, Albany received 10, Boston received 2.

And Baltimore, having received a majority of all the votes cast, was declared to be selected as the place for holding the next Annual Convention.

The Convention adjourned in course.

The Convention met at half-past nine P.M.

The President in the chair.

There being no further business before the Convention, on motion of Mr. Flanagan the Convention adjourned *sine die*.

The Convention marched in a body to the Briggs House, where it was entertained by the members of the Chicago District.

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PUBLISHED BY THE

National Telegraphic Union.

VOLUME II.

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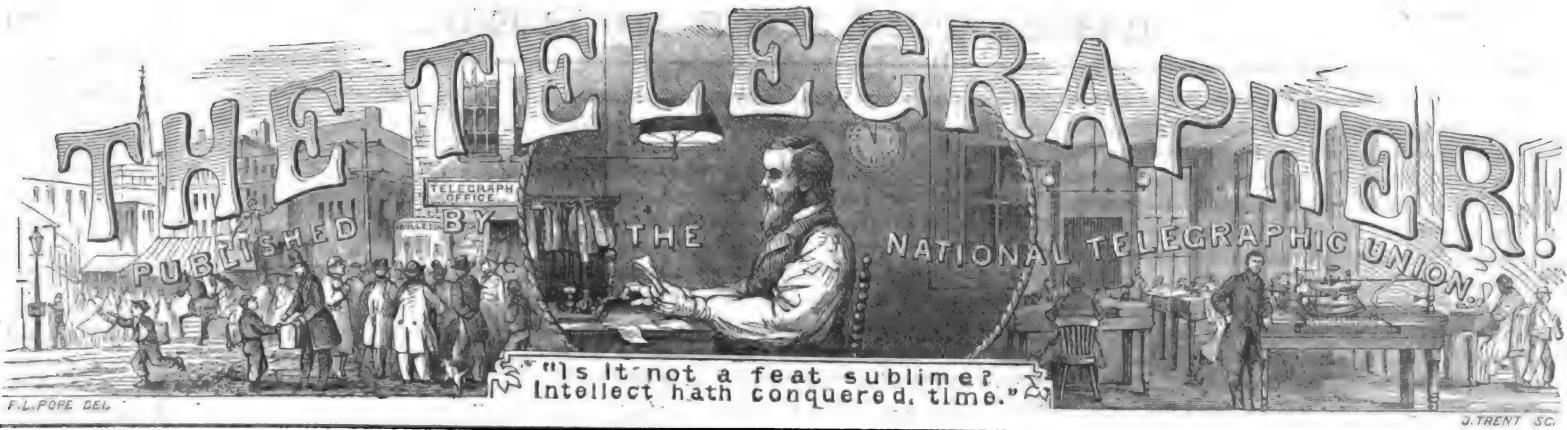
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Vol. II.

New-York, Friday, December 1, 1865.

No. 17.

GENERAL OFFICERS

OF THE

NATIONAL TELEGRAPHIC UNION.

C. W. HAMMOND, PRESIDENT, P. O. Box 3120, St. Louis, Mo.
W. H. YOUNG, VICE-PRESIDENT, U. S. Tel. Office, Washington, D. C.
L. H. SMITH, TREASURER, B. & B. Tel. Off., 14 Broad St., N. Y.
J. C. UPHAM, RECORDING SECRETARY, P. O. Box 4064, Boston, Mass.
S. P. PEABODY, CORRESPONDING SECY., Box 1091, St. Joseph, Mo.

THE TELEGRAPH IN BRAZIL.

In a petition to the Brazilian Parliament for exterior and interior communications, dated Rio de Janeiro, July 8th, 1865, and signed by one hundred and fifty-seven merchants, brokers, and others, we find the following in relation to the telegraph:

"As to the necessity of establishing throughout Brazil lines of electric telegraphs, the undersigned are firmly convinced that there is not one amongst you who does not recognize it, and does not most ardently desire that they should be immediately established. The backwardness of the country in this respect is most painful to behold.

"We possess only an insignificant line to Cape Frio; another, even less important, to Petropolis, and the wires which run along those sections of our lines of railroad which are in operation. Upon our immense line of eight hundred leagues of sea-coast, on which are situated sixteen of our twenty provinces, we do not possess another line of telegraph than that which unites the capital of the empire with Cape Frio (a distance of about sixty miles).

"The undersigned will not take up your time and attention needlessly in laying before you the advantages which the electric telegraph offers for the proper government of the country in its political, financial, administrative, and judicial aspects. They will merely bring to your remembrance the great want of them, which the Government must most seriously feel at the present moment, when it constantly requires to transmit most urgent instructions to the remotest points of the empire.

"Happily for the country, the Government, during the present war, having the seaports open, can, by the lines of steamers north and south, and by means of ships of war, dispatch its orders with more or less rapidity. But suppose that we were at war with a powerful maritime nation, who would commence by blockading our ports, how would the Government transmit its orders and instructions to Para on the one side, and to Rio Grande del Sud on the other?

"What could we do without lines of electric telegraph and good roads along the coast, by which the provinces could readily communicate with one another and with the capital of the empire?

"As to the commercial advantages which Brazil would enjoy by the establishment of lines of electric telegraph through the country, it is unnecessary to set them forth. Who ignores that in Europe and the United States the electric telegraph is the most potent and indispensable commercial agent?

"The advantages of establishing the electric telegraph through Brazil being recognized, the country requires that it should be established along the whole length of our coast, from the Amazon to the Rio Grande del Sud, not only for commercial but also for administrative reasons.

"We ought not wait to see the tardy realization of Ballestrini's uncertain enterprise, which undertakes to throw a submarine cable across the meridional Atlantic Ocean, and unite Europe with America. This gigantic enterprise is of most difficult realization, and many eminent engineers doubt the possibility of its success. Why, then, wait to see its realization, when we may in a short time be enjoying the advantages of internal lines undertaken by ourselves?

"Should Ballestrini's undertaking be a success, it will then find us prepared to unite our lines with his, thus placing us in immediate contact with Europe.

"Should it prove a failure, we shall not have lost time by the establishment of our own lines, which (having lost all hopes of the meridional Atlantic Ocean Cable being laid down) we may unite with the telegraphic system of the United States, which is, according to last accounts, to be united in a short time with the Russian line running through Siberia by prolonging itself along the British and Russian possessions of North America and crossing Behrings Straits.

"This enterprise has everything in favor of its successful realization, and by means of it we shall be able to reach Europe, though by a long circuit."

THE RUSSIAN TELEGRAPH.

A TELEGRAM has been received from port St. James, on Frazer River, stating that the Russian-American telegraph has been built from New-Westminster to that point by Assistant Engineer Conway, who was progressing still further with great success. Captain Conway's party will undoubtedly reach Stuart's Lake before the close of the season, where Captain Carlin is preparing batteaux to cross supplied for the passage to Lake Babine.

Messrs. Henly & Co., of London, are manufacturing wire for the main line of the company, and one thousand four hundred miles will soon reach Colonel Bulkley at Sitka. This is in addition to one thousand two hundred miles of wire previously sent from New-York.

The cable which is to cross the Straits has been ordered in England. Mr. Mumford, Vice-President of the Western Union Extension, sailed from this port a few weeks since, with full power from that company to contract for four hundred miles of cable, to be finished in three months and laid next August.

M. Abasa left San Francisco the latter part of July, in the bark Olga, for the Amoor River, from which point he will build northward with an efficient working party and meet the party sent by Colonel Bulkley from the Gulf of Anadair.

The whole enterprise, according to latest advices from official sources on the Pacific, bids fair to be most successfully and triumphantly carried out to final completion at

a much earlier day than has heretofore been anticipated by its most sanguine friends.

The Government, from which was expected the assistance of a steamer to enable Colonel Bulkley to complete certain important marine exploration on the coast, has most signalized failed to respond to the requirements of the case, and the enterprising and energetic engineer in charge of the expedition has proceeded thus far without the aid sought for and granted by Congress. Now that so many steamers have been put out of commission by the cessation of the war, it is confidently expected that one of our national vessels may be detailed to represent our flag among the frigid regions to be traversed by the energetic and hardy expeditionists.

It may not be generally known that the expeditionary corps sent from San Francisco, and which departed from Vancouver's Island the last week in July, is organized on a military basis, similar to a brigade of our army, but such is the fact. Not only is the expedition so organized, but all the employés are uniformed in a blue suit, not varying materially from that of our infantry. Among the officers attached to the expedition is Captain Lawrence Conlin, chief carpenter, who is also drill officer, being an old soldier, he having served in the Mexican war, subsequently in the regular army in Texas, and latterly a lieutenant in the Third Massachusetts Cavalry. Colonel Bulkley and many of his assistants also served in the telegraph corps under General Banks, and nearly all of them have frequently been under fire. Colonel Bulkley, in equipping the expedition, while in New-York, provided enough arms and ammunition to fully equip five hundred men for active service against Indian or "any other man" not susceptible to the kindness and savagery which are the known characteristics of the head of the expedition. Captain Conlin has had considerable experience in fighting the Lipau, Camanche, and other Indian tribes in Texas, as well as the guerrillas of Louisiana; and, where the diplomacy of Colonel Bulkley, aided by the most liberal presents (of which a great quantity was shipped from this city) is not effectual in securing an uninterrupted right of way, free from molestation by the wild tribes of those regions, the bayonet and bullet will be fearfully brought into requisition, wielded by boys who have braved death under their old flag, which they now carry with them on their peaceful and civilizing errand. No fears are entertained on this point; and the warlike tribe of the Tchootchees will receive as much conciliation as may be accorded to the more effeminate and pecunious Chenoaks; but any attempt to impede the progress of the grand enterprise will be promptly, fearlessly, and bloodily met, and effectually punished.

The next advices from the expedition may announce the uniting of the wires of the second section of the line with those being built up to Stuart's Lake.

SAN FRANCISCO, Nov. 11, 1865.

The Western Union Telegraph Company's schooner, Milton Badger, sailed from New Archangel Bay, bound to Anadyrsk, Siberia, on August 21, 1865, having on board Lieutenant Collins L. Macrae and party, who are to ex-

THE TELEGRAPHER.

plore the country to Anadyrsk, a Russian fort in Siberia. On August 28th they made Koydiak Island. On September 5th they arrived at Onagak Pass. On the 6th they spoke the company's flagship, Golden Gate, bound for Fort Michael, Russian America. On September 8th they saw the Island of St. George; on the 14th they made Cape St. Basil, and on the 19th they run into the bay and anchored in the passage, between Anadyr Bay and the river, opposite an Esquimaux village. Before the vessel came to anchor the natives came on board. They were very friendly, and anxious to sell their furs for tobacco, etc. On the 28th the schooner weighed anchor and worked up the passage towards the river and anchored one hundred miles from its mouth.

On the 21st Lieutenant Macrea, with a boat's crew, started to make a reconnaissance of the river and found it clear of ice, and the country had the appearance of being a good place to build the line. On the afternoon of the 22d Lieutenant Macrea went on shore to a native settlement five miles from the schooner, and found a herd of reindeer, containing from four hundred to five hundred head. On the 25th he commenced taking in stores, having selected his camp five miles from the mouth of the river. In the meantime the schooner had worked up to within five miles of the river. On the 29th they finished landing stores.

On October 1st we saw the company's steamer, George S. Wright, working up the passage, and weighed anchor and ran down to her. Colonel Bulkley was on board. On the 13th the thermometer was down to 16 degrees. On the 14th we sailed for San Francisco, in company with the company's steamer, George S. Wright, bound for Petropavlovski, Kamtschatka, and thence for Victoria, to arrive in San Francisco about the last of November.

The schooner on the 18th made Amolkhola pass, having experienced strong winds while in Behring Sea. On the 28th there were heavy gales from the northwest. On the 22d spoke bark Coral, of New-Bedford, from the Arctic Ocean, bound to San Francisco, with twelve hundred barrels of oil, made this season. On the 5th of November we made the Farrallone Island light of the harbor of San Francisco.

The Russian steamer Alexandria, nine days from Sitka, arrived at Victoria on the 3d instant. She reports that the telegraph expedition had not returned from the North, and was not expected until New Year's.

THE AURORA BOREALIS And the Electric Telegraph.

Boston, Aug. 4th, 1855.

To the Editor of the Boston Journal:

In the month of August, 1859, the beautiful phenomenon of the Aurora Borealis excited wonder and admiration in the minds of our people, both from the grandeur of the display and its effect upon the magnetic needle, particularly the electro-magnetic needle, with the coil of wire in the circuit of a telegraph line. In addition to experiments made with the galvanometer at that time, several telegraph lines were worked, messages transmitted, etc., without the aid of artificial electricity, the Aurora Borealis assuming the entire duty of the usual batteries, and although the work was not performed as well as it might have been done with our usual battery power, without the aid or interference of the Auroral current, yet it was a great satisfaction to many wonder-stricken telegraphers, who had never seen the like before.

Many of the effects of the phenomenon and accounts of experiments made upon telegraph lines were placed on record in the various newspapers at that time, some of which were also published in works on electricity and telegraphy. As the effect of the Auroral current of Thursday, Aug. 3d, 1855, upon the electro-magnetic needle and telegraphic instruments differed considerably from that of August, 1859, we wish to place on record, for comparison with previous experiments and for future reference, the

result of comparatively rude observations, made with instruments, on a wire running from Boston to Springfield, Mass.

Although the Auroral current was undoubtedly as powerful as that of August, 1859, it was observed that our wires were not so greatly disturbed by fluctuations (with our usual batteries on duty), but rather showed a weakness of currents, as though the batteries were not in proper working condition, while the effect in August, 1859, was to alternately and continually augment and decrease our battery currents, in consequence of the continual reversing of the polarity of the Auroral current, thus making it exceedingly difficult to keep the instruments adjusted for the currents, and rendering for a while our lines almost useless.

In our experiments of the 3d instant, we found, after removing the batteries, quite a powerful and steady current, each wave of which appeared of much longer duration and the increasing and decreasing of the current more gradual than was observed in August, 1859. But the most remarkable effect shown in our recent experiments with the galvanometer, was the almost entire absence of the changes of polarity, which were very marked in the experiments of 1859, each wave having been almost invariably succeeded by a wave of opposite polarity.

In the experiments of the 3d instant the positive polarity of the Auroral current was almost invariably West during the observations, which is the reverse of the usual battery currents on the Western wires, thus accounting for the weakness of currents observed previous to the experiments—as the two currents, being generally opposed, were partially neutralized.

The following observations of the needle will roughly show the power, constancy, and polarity of the Auroral current during the fifty minutes occupied by the experiments:

The batteries having been removed and the galvanometer placed in the circuit of the wire, extending from Boston to Springfield, Mass., at 12h. 51m. P. M., a deflection of 3° east was observed, the needle at the time gradually ascending. It should be remarked that a deflection of the needle east in this instance, simply shows the polarity of the Auroral current to have been the reverse of our usual battery current. After a comparatively steady upward movement of three minutes' duration, with an occasional check or slight downward movement (which characteristic was observable throughout the experiments), the needle remained stationary at 44° deflection, but for only a few seconds, having descended rapidly to zero in the succeeding thirty seconds. After remaining quietly at zero one minute, another ascent was commenced east, stopping at 28° at 12h. 57m. 30s., the duration of that ascent having been two minutes. Remaining at 28° one minute, it descended to zero in one minute thirty seconds, but immediately commenced another ascent in the same direction, reaching 60° at 1h. 3m., this ascent occupying three minutes. The needle remained steady at 60° for three minutes, when, during the succeeding minute, it ascended to 70° and returned to 67°, where it remained two minutes. During the next succeeding minute it ascended to 72°, descended to 65°, and again ascended to 78°.

Remaining at 78° two minutes, it commenced a descent, occupying one minute, and remaining stationary at 38° for thirty seconds, when it rapidly descended to zero, as if the current had been suddenly removed. Remaining at zero thirty seconds, another ascent was commenced east, reaching 60° at 1h. 16m. During the succeeding minute the needle descended to zero, ascended three degrees west, and returned to zero. After remaining at zero one minute, an ascent west was commenced at 1h. 18m., reaching 34° in thirty seconds. Remaining at 34° one minute, it rapidly descended, as though the entire current had been suddenly removed. The needle then remained stationary at zero until 1h. 26m., when it ascended 5° east, and remained between that and zero until 1h. 33m., when it stood perfectly quiet at zero until 1h. 40m., at which time the observations were discontinued.

In order to give an idea of the comparative value of the Auroral current during the above experiments, we would state that, with the same galvanometer, a battery of thirty-four cells in New-York, with a resistance of No. 8 galvanized wire from New-York to Boston, produces a deflection of 70°.

G. F. M.

OVERLAND TELEGRAPH TO EUROPE.

LECTURE BY P. M'D. COLLINS, ESQ.

A most interesting lecture was delivered, a short time since, before the Traveler's Club, No. 1 West Fourteenth street, by Mr. Collins, the projector of the Overland Telegraph. The magnificent suite of rooms belonging to the club was filled with a distinguished assemblage of *litterateurs, savans, and voyageurs*. The most pleasing and novel feature in the club was the presence of ladies, thereby dispelling from the minds of the fair sex those horrible ideas of clubs most generally entertained by them.

Mr. Collins was introduced by Smyth Clark, Esq. He said that between the city of Paris and the city of New-York there intervened but thirty-nine miles of water. The remainder of the distance is a practical land route, possessing unknown and unlimited resources for commerce and boundless treasures for American enterprise. The lecturer next gave a rapid sketch of the gradual progress and discoveries made in the realms of science until it culminated in the electric telegraph. He named a few of the numberless benefits conferred on mankind by this omnipotent agent, and compared it to Jupiter Tonans, flashing intelligence from pole to pole. There is an unbroken line of communication between Cape Clear, in Ireland, and the banks of the great Amoor River in Asia, and in the Western hemisphere between New-York and Fraser's River in British Columbia. These lines are about fourteen thousand and eight hundred miles in length. There still remains a gap to break the belt of communication around the world, and this is about six thousand five hundred miles. We want to be in daily, nay, hourly communication with Europe, and stout hearts and stalwart arms are attempting the solution of this problem. To unite the Amoor River in Asia with Fort St. James on the Fraser's River in America shall be to complete the circumterrestrial chain. Then at Calcutta and London, New-York and Paris, Constantinople and San Francisco, the same pulsations shall vibrate at the same moment, and the same standard and regulations of commerce shall be adopted in each city.

Regarding the practicability of joining those points above mentioned, the most important point to be considered is that not the slightest difficulty exists in the matter of territory, or interference on the part of the United States, Russian, or English Governments. Those three nations concur in extending every encouragement to the work of girdling the world with a belt of friendship and progress. The dividing line between barbarism and civilization on the American shore of the Pacific is Simpson's River, which empties itself into South Observatory Inlet. From this River to Behring Strait the country is inhabited by Indians who, however, are quite different from the savages of the Southern prairies. Intercourse with the agents of the Hudson Bay Company has shown these tribes to be more tractable than the rest of the red men. On the Siberian side of the Straits there is but one tribe, the Tchuktsi. These are Tartars, who were driven to this extreme point of the continent by their more powerful neighbors, and they are uniformly peaceable and kindly disposed towards Europeans and Americans. The wires shall be extended to Behring's Strait on either side, and a cable laid across this channel, which is only thirty-nine miles wide. Even this distance could be lessened by laying the cables from the shores of either continent to one of the numerous islands intervening. When this project was first started it met with considerable opposition from the Hudson Bay Company, and a similar Russian organization on the other side; but the energy and perseverance of the projector obtained from the Russian and English Governments permission to continue his work. The lecturer concluded with an encouraging picture of the

progress of the work so far, and the favorable prospects of success.

Mr. Cyrus Field was present and listened attentively to this new course of telegraphic communication which seemed more practicable than Atlantic cable stock.

Professor Morse was also present.

A vote of thanks was tendered to Mr. Collins by the club.

TELEGRAPHIC SUBMARINE LINES

Between Europe and America.

To The Editor of the Herald:

THE third attempt lately made to connect Europe with America by telegraph having unfortunately proved unsuccessful, anxious inquiries are being made as to the several other schemes in contemplation for the same object. The several lines proposed to connect Europe with America are:

First—Those which cross the Atlantic Ocean.

Second—Those which cross the Pacific Ocean.

Leaving out of consideration the scheme for establishing one or more lines across the Pacific, with which alone both worlds will not be satisfied, the other schemes, crossing the Atlantic in various latitudes, are:

First—The line from Scotland through Iceland, Greenland, and North America.

Second—That from Ireland to Newfoundland.

Third—That from Bordeaux through Lisbon, the Azores to Boston.

Fourth—That from Lisbon or Cadiz through the Canary and Cape Verde Islands, St. Paul to Cape St. Roque, Cayenne, and thence to be merged into the American telegraph system.

Second in practicability I would place the Atlantic cable; but its length through an ocean exposed during the greater part of the year to gales and fog, causes difficulty in laying and repairing, produces great losses in the intensity of electrical currents, long delays in the manifestations of the signals, and consequently a less number of messages daily.

The line via Iceland I believe to present great difficulties both in laying and repairing.

The line from Lisbon via Azores to Boston is open to the serious objection of laying its longer half across the deepest part of the Atlantic Ocean.

Of these schemes I consider the fourth as the most practicable, the easiest in all seasons to be laid and repaired in case of accidents, and it will be the most profitable, as being capable of conveying a greater number of messages daily. This one I have always advocated, as you will gather from a perusal of the accompanying pamphlet, which I published in New-York in April, 1868, entitled, "Telegraphic Submarine Lines Between Europe and America and the Atlantic and Pacific." Two more years of experience in the laying of submarine cables have confirmed me in the opinion expressed in that pamphlet, viz.:

"To one who desires to connect Europe and America by means of the telegraph, and who is unbiased as to country or race, but looks upon this universal enterprise with a truly cosmopolitan interest, there at once suggests itself to his mind the idea of crossing the ocean wherever it may be narrowest, within those latitudes which are inhabited, leaving the most western part of Europe, which is Spain, and joining the most eastern coast of America, which is Brazil. This line, from Cape St. Vincenç in Europe to Cape St. Roque in America, has the advantage of passing by many important islands and by various capes and banks favorably situated for the sub-division of the length of the line into short sections; shorter, indeed, than many of the lines already established between other points."

Having received from the majority of the governments interested in that route the required concessions, it may interest the public to know that I hope before long to be in a position, with the assistance of a limited company, to

carry out this project, and I may add that I was in New-York last August with this view.

While supporting my project I have no desire to put myself in opposition to any other submarine telegraphic enterprise, my firm conviction being that there will be employment sufficient to give a handsome revenue to a dozen cables, and I most heartily wish success to the Atlantic Cable Company in their next attempt, which merits success as being the pioneer of the grandest enterprise of the present age.

I remain, sir, yours truly,

ARTURO DE MANSANTA,
Engineer of the Spanish Government Corps, member Institution C. E. of London.

GRAND HOTEL, BRIGHTON, Sept. 22, 1865.

ATLANTIC "DEEP SEA" SOUNDINGS.

ACCOUNTS of "deep sea" soundings have appeared from time to time; those obtained by the Bulldog, Captain Sir L. M'Clintock, being the last, may be considered unexceptionable for accuracy. The following remarks on this subject by one of her officers, appear in the *Nautical Magazine* for October: In the deep sea soundings, a small line and heavy weight were found to be best adapted for determining the depths accurately, as with these the surest indications of the weight having reached the bottom were obtained. With a large line—deep sea line, for instance—it was found exceedingly difficult to ascertain when the lead was at the bottom. Cod line was, therefore, invariably used for the purpose, with weights as follows: In depths under 150 or 200 fathoms, with a 28lb. lead; beyond 200 or 300, and up to 800 or 1000 fathoms, with a 56lb. lead; and in all greater depths with an iron sinker of 118lbs. weight. The cod line was supplied from the manufacturers on small wooden reels, containing 1000 fathoms each; and to prevent the inconvenience of bending one line to another whilst sounding, was usually transferred to a larger, but very light reel, in one length of 2500 fathoms.

The method of ascertaining the depths was as follows: The line was eased down for the first hundred fathoms, and then allowed to run off the reel unchecked. The time occupied by the running out of each successive hundred fathoms were noted, and the rate, as might be expected, was observed to decrease gradually as the weight descended. When a marked decrease in the rate occurred, the weight was known to have reached the bottom; and, under favorable circumstances, the line almost ceased to run out after this happened. Usually, it was also quite possible, by allowing the line to run loosely through the hand, and exercising great care, to feel when the bottom was reached. It was, however, the invariable custom, after the weight was known to be down, to allow the line to run out to the next mark, so that the time noted should prove the fact. The slack line was then hauled in, and the depth taken when the line was quite taut, and up and down. The line was then hove in slowly by the deck engine; but it very seldom happened that more than a few hundred fathoms were recovered, so that the weight and most of the line was sacrificed upon each occasion. Once, however, the iron sinker, of 118lbs. weight, was brought up from a depth of 1918 fathoms.

For bringing up a specimen of the bottom, a special apparatus had, of course, to be employed; and it required a strong line to bear the heavy strain put upon it whilst being hove in with the engine. Deep sea line was ordinarily used for this purpose; but when the ship had much pitching motion, the tapered whale line alone possessed the requisite strength. In all the deep sea soundings obtained by the Bulldog, two distinct operations were, therefore, performed: one for determining the depth, and the other for bringing up the bottom. It may be well, also, to add that, in addition to the uncertainty of obtaining the depth accurately with a large line, the difficulty was rendered greater by the circumstance of the sounding machine being furnished with detaching weights, which released themselves the moment they touched the bottom. The

time occupied by procuring a specimen of the bottom, was usually about three hours; during which long period it was necessary to keep the ship over the line, and this was frequently attended with great difficulty. It was ordinarily effected by keeping her head to wind, by means of the driver, and occasionally turning the paddle-wheels very slowly. When blowing fresh, the main topsail, set aback and braced about as required, to assist the driver, was found very useful. It also tended to keep the ship astern, so that the paddle-wheels could be moved sufficiently to give effect to the rudder. In this, as in every matter connected with deep sea sounding, the utmost care is necessary, in order to obtain complete success; and without it the labor is worse than useless.

[From *The Atlantic Telegraph*, edited by HENRY O'NEIL, published weekly on board the "Great Eastern."]

ADVERTISEMENTS.

CAPT. ANDERSON will sell by auction in the chief saloon of the "Great Eastern," on Saturday, August 12, at one o'clock, the following articles, the property of various gentlemen leaving their present quarters:

1. Lot 1. The "Great Eastern." For cards to view apply to Mr. Gooch on board.

2. The good-will of the Atlantic Telegraph Company. (This invisible property is in Mr. Fields' possession.)

3. A small brass pot belonging to Prof. Thomson.

4. A sextant. (Above three million observations have been taken with this interesting instrument by Captain Moriarty.)

5. Some miles of telegraph cable, taken from a depth of two thousand fathoms. (Messrs. Canning and Clifford recommend this lot to enterprising speculators. It is calculated that by cutting it into slices of one-quarter inch in thickness, sufficient would be realized to pay off the entire debt of Great Britain or the United States. No one to bid for less than one yard.)

6. La vie de Jules César. (Recommended by Mon's. Despecher for soporific purposes.)

7. Several abstruse calculations, formula, etc. (Mr. Varley will explain the use of the same to the fortunate purchaser.)

8. A color box, some drawing materials, and some letters of introduction to various American celebrities (literary). Mr. O'Neil will guarantee the perfect condition of these articles, as he has never used them.

9. A large quantity of volatile spirits of hope, part over proof.

10. Two buoys, with rafts, etc. To be seen in or about lat. 51° 30' N., and long. 89° W. For cards to view apply to Messrs. Canning and Clifford. (This lot must be removed by the purchaser.)

11. A complete electric apparatus. Messrs. De Sauty and Saunders.

12. A free pass from Boston or Halifax to Liverpool by any of the Cunard boats, the proprietor, Mr. W. H. Russell, having no use for the same.

PARISIAN SCIENCE.

The Paris correspondent of the London *Chemical News* writes as follows:

"An important experiment has been made by M. Duchemin, of Paris, during a holiday at the seaside. He made a small cork buoy, and fixed to it a disc of charcoal containing a small plate of zinc. He then threw the buoy into the sea, and connected it with copper wires to an electric alarm on the shore. The alarm instantly began to ring, and has gone on ringing ever since, and it is added that sparks may be drawn between the two ends of the wires. Thus the ocean seems to be a powerful and inexhaustible source of electricity, and the small experiment of M. Duchemin may lead to most important results."

"All difficulties in the way of producing a constant light by induction machines, have now been overcome by the Alliance Company, and the two lighthouses at Havre will now be definitely illuminated. The machines will be driven by a six-horse power locomotive engine, which will also compress air for whistles or trumpets, to be used as fog-signals."

THE TELEGRAPHER.

THE BUOY I LEFT BEHIND ME.

WRITTEN ON BOARD THE GREAT EASTERN.

Sung by Mr. Canning to the tune "The Girl I Left Behind Me."

'TWAS not that I was void of heart,
As some kind critics have defined me,
That I was forced by fate to part
And leave my darling buoy behind me.

When dozing in my easy-chair,
Whilst softest chains of slumber bind me,
Still shall my fancy wander where
I left my darling buoy behind me.

And when I'm doomed again to rove,
In sight of thee should fortune find me,
I'll greet thee with a father's love,
Poor wretched buoy I left behind me.

THE TELEGRAPHER'S VISION.

BY M. D. B.

NOTE.—All will remember that about six years ago there was a most remarkable display of the Aurora Borealis, or Northern Lights, as it is most commonly called. This singular and beautiful phenomena was rarely visible except during the evenings; it nevertheless frequently existed in the daytime, and the reason why we know it did exist in the daylight was from its wonderful effects upon the telegraph lines. It is not, however, my purpose to enlarge upon the subject, but merely to mention that it was at the time above referred to, and the attending excitement, on which the subjoined sketch is founded.

It was on a Saturday night, in January of 1859, that an operator sat nodding and napping beside the smoldering remains of an almost exhausted fire in his office. The grotesque little clock overhead pointed close upon twelve. It rained, and the sound of the drowsy, dripping water from the house-spouting fell with a musical measure of monotony upon the half-conscious ears of the sleeper. Slowly his heavy head swayed, first to this side, then to that, and anon forward upon his chest. The dark misty atmosphere shrouded the sleeping city—as the wet pall shrouds the sea-buried mariner where the receding tide has left him upon the lonely beach. The greatest republic on earth slept, and its electric nerves thrilled not then with the potent thoughts of progress—while the operator slept in his chair forgetful alike—*Morse and remorse*.

But, hark !

Pr-r-r-r. Tap-tap-tap-tap-tap.

The operator snored as his head fell upon his breast with a jerk which half aroused him. Again the call is sounded.

"They bid me good-night," he reassured himself. "This cannot be a dream?" He answers once more—this time giving, as is customary his signal, still no response.

A strange stillness seemed to pervade that mart of intelligence, where through the day and oftentimes into the dead hour of night, the busy thoughts of man are flashed with lightning speed from ocean to prairie.

The operator proceeds towards the window, and flattening his nose against the pane, exclaims: "Ugh! it's an awful night. See, too, look there! the sky is overcast with a bright golden hue." He turned to go home, when lo, the most astonishing phenomena met his bewildered gaze. A thousand electric sparks flew around his office and danced upon the "sounders." The relays, too, were joining in the chorus with that sharp smacking noise with which lightning is wont to play its antics in time of storms. Surely, he thought to himself, the imps of electricity are holding a carnival in my office. Awe-struck he stood there, glaring at the strange spectacle. When all the sounders tapped out aloud, as with one voice:

"What ho, there!"

"I come on the wings of the Aurora to bid you God-speed. I caught the wild and frantic lightning's current when on earth, and ye have tamed it for the use of man. I bring it once again—though of a different kind. Throw off your batteries, and let me talk with you from the heavens."

The operator disconnected them, and strange to relate the wires remained, charged as before, though with a still stronger current. He now asked over the wire who it was that thus addressed him.

Pr-r-r-r tap, tap, tap. They sound aloud in unison again.

"'Tis I! Benjamin Franklin!! Keep on the good work. Girdle the earth; under and over the mountain heights, through rushing rivers, along valley and plain—deep down into the depths of the dark blue ocean—speed the living current. Borne on wings invisible, let the great truths of God and man fly through earth, sea, and air."

"May I ask," the operator interrogated, "what strange kind of electricity you are using here?"

"It traverses the million miles of space, from planet to planet. Yours is of this sphere alone. Mine is the main, yours the local."

"Why, I pray you, is it that while the same poles of the batteries oppose each other on these lines, I am thus holding communion, contrary to the known laws of electricity?"

"The established laws of electricity, like all laws of nature, are immutable. But can you not conceive that reversing the poles repels all galvanic current that previously pervaded the wire, making it more susceptible of this new element?"

The operator, pleased with the ready reply of the great philosopher, made bold to seek still further after truths for which our souls yearn, but which God in his wisdom ordains to make known by slow degrees.

"You tell us to girdle the earth. Even miles below the surface of the sea, on the craggy peaks of the ocean's bed. You are aware it has just failed, or partially so. Tell me, I beseech you, shall we ever succeed in thus spanning the great Atlantic?"

"Do the best ye can, and trust to God for the future. I believe it will prevail. It must eventually be accomplished. I behold with joyful pride the efforts of my followers in this noble science. Already men are maturing plans which will extend the wires far, far away up into lands of perpetual snow and ice—thence to distant countries on the opposite side of the globe. The science and art of electricity and telegraphy are but in their infancy. Have faith, and falter not in your work."

Here all the "sounders" ceased their clatter, and then in a minute afterwards, as if handled by an exultant spirit, tapped out louder than ever before :

"Type the brain—Telegraphs the nerves of the civilized world. Let them thrill and throb throughout the universe. Farewell! the golden mist vanishes below the horizon. Farewell!"

"Stay! one moment more, stay!" But here the operator's anxiety to detain the spirit longer aroused him. Staring vacantly and with a nervous step, he sought the window only to hear again the drowsy dripping rain, and to peer out into the darkness of that dismal night. Here the truth flashed across his mind. The Aurora could not appear on such a night as that, and he was only dreaming.

ON THE MOTION OF FLUIDS

From the Positive to the Negative Poles of the Closed Galvanic Circuit.

WIEDEMANN has communicated to the Russian Academy of Science a memoir on the mechanical action of the voltaic circuit, which is of essential interest and importance. The apparatus employed consists of a porous earthenware cell, closed at the bottom, and terminated above by a glass bell, firmly cemented to the upper edge

of the cylinder. Into the tubule of the bell a vertical glass tube was fitted, from which a horizontal tube proceeded so as to permit the fluid raised to flow over into an appropriately-placed vessel. A wire, serving as the negative pole of a battery, passed down through the glass bell into the interior of the porous cylinder, where it terminated in a plate of platinum or copper. Outside the porous cylinder another plate of platinum was placed, and connected with the positive pole of the battery. The whole stood in a large glass vessel, which, as well as the interior porous cylinder, was filled with water. The intensity of the current was measured by a galvanometer. As soon as the circuit was closed, the liquid rose in the porous cylinder, and flowed out from the horizontal tube into a weighed vessel. The results obtained by means of this apparatus were as follows:

1. The quantity of fluid which flows out in equal times is directly proportional to the intensity of the current.

2. Under otherwise equal conditions, the quantities of fluid flowing out are independent of the magnitude of the conducting porous surface.

To avoid any uncertainty arising from the laws of the flow of liquids through small orifices, Wiedemann measures the intensity of the mechanical action of the current by determining the height of a column of mercury which would hold the transferring force in equilibrium. For this purpose a graduated tube or manometer, filled with mercury, was attached to the extremity of the horizontal tube above-mentioned; with different currents, and porous surfaces of different extent, the mercury in the manometer rose to different heights. By the measurements of these heights the following results were obtained:

3. The height to which a galvanic current causes a fluid to rise is directly proportional to the intensity of the current, and inversely proportional to the extent of the free porous surface.

The mechanical action of a galvanic current may be referred to its simplest principles by the following proposition:

4. The force with which an electric tension, present upon both sides of a section of any given fluid, urges the fluid from the positive to the negative side, is equivalent to a hydrostatic pressure which is directly proportionate to that tension.

In this manner, therefore, we obtain a simple measure of electric tension, and its mechanical action in terms of atmospheric pressure, and consequently of gravity.

The above laws hold good only for fluids of the same nature. When different fluids are subjected to the action of the currents, the mechanical action is greatest upon those which oppose the greatest resistance to its passage. The requisite data are still wanting to determine the precise connection between the mechanical action and the resistance; but observations made with sulphate of copper, of different degrees of concentration, appear to show that the quantities of fluid transferred in equal times, by currents of equal intensity, are nearly proportional to the squares of the resistances.—*Telegraph Review*.

TERRESTRIAL MAGNETISM.

COL. SABINE, in his address before the British Association, at their last meeting, gives the following summary of the recent progress of the study of terrestrial magnetism:

"The magnetic phenomena, or, as it is now customary to call them, the three magnetic elements—declination, inclination, and magnetic force—appear to be everywhere and in both hemispheres the resultants of a duplicate system of magnetic forces, of which one at least undergoes a continuous and progressive translation in geographical space, the motion being from west to east in the northern hemisphere, and from east to west in the southern. It is to this motion that the secular change in all localities is chiefly, if not entirely, due; affecting systematically, and according to their relative positions on the globe, the configurations and geographical positions of the magnetic

lines, and producing conformable changes in the direction and amount of the magnetic elements in every part of the globe. The comparison of the earlier recorded observations with those of the present epoch, gives reason to believe that, viewed in its generality, the motion of the system of force which produces the secular change has been uniform, or nearly so, in the last two or three centuries. Under favorable conditions the regularity of this movement can be traced down to comparatively very minute fractions of time. By the results of careful observations, continued for several years at the observatory of St. Helena—where, in common with the greater part of the district of the South Atlantic, the secular change of the declination exceeds eight minutes in the year, and, from its magnitude, therefore, may be advantageously studied—every fortnight of the year is found to have its precise aliquot portion of the annual amount of the secular change at the station. This phenomenon of secular change is undoubtedly one of the most remarkable features of the magnetic system, and cannot with propriety be overlooked, as it too frequently has been, by those who would connect the phenomena of terrestrial magnetism generally, mediately or immediately, with climatic circumstances, relations of land and sea, or other causes to which we are assuredly in no degree entitled to ascribe secular variation, and who reason therefore as if the great magnetic phenomena of the earth were persistent, instead of being, as they are, subject to a continual and progressive change. It may confidently be affirmed that the secular magnetic variation has no analogy with, or resemblance to, any other physical phenomenon with which we are acquainted. We appear at present to be without any clue to guide us to its *physical causes*, but a way is preparing for a future secure derivation of its *laws*, to be obtained by a repetition, after a sufficient interval, of the steps which we are now taking to determine the elements corresponding to a definite epoch.

"The periodical variations in the terrestrial magnetic force are small in comparison with the force itself; but they are highly deserving of attention on account of the probability that, by suitable methods of investigation, they may be made to reveal sources to which they owe their origin, and the agency by which they are produced. To investigate these variations by suitable instruments and methods, to separate each from the others, and to seek its period, its epochs of maximum and minimum, the laws of its progression, and its mean and numerical value or amount, constituted the chief purpose for which magnetic observations were established, for limited periods, at certain stations in her Majesty's dominions, selected in the view that, by a combination of the results obtained at them, a general theory of each, at least, of the principal periodical variations might be derived, and tests be thus supplied whereby the truth of physical theories propounded for their explanation might be examined. We are just beginning to profit by the collocation and study of the great body of facts which have been collected. Variations corresponding in period to the earth's revolutions around the sun, and to its rotation around its own axis, have been ascertained to exist, and their numerical value approximately determined in each of these three elements, the declination, inclination, and magnetic force. We unhesitatingly refer these variations to the sun, as their *primary source*; since we find, in whatever part of the globe the phenomena are observed, the solstices and equinoxes are the critical epochs of the variation whose period is a year, whilst the diurnal variation follows in all meridians nearly the same law of local solar hours. To these unquestionable evidences of solar influence in the magnetic affections of the earth, we have now to add the recently ascertained fact that the magnetic storms or disturbances, which, in the absence of more correct knowledge, were supposed to be wholly irregular in their occurrence, are strictly periodical phenomena, conforming with systematic regularity to laws in which the influence of local solar hours is distinctly traced.

"But whilst we recognize the sun as the primary cause

of vibrations whose periods attest the source from whence they derive their origin, the mode or modes in which the effects are produced constitute a question which has been, and may still be, open to a variety of opinions; the direct action of the sun, as being itself a magnet, its calorific agency occasioning thermo-electric and galvanic currents, or in alternately exalting and depressing the magnetic condition of substances near the earth, or in one of the constituents of its atmosphere, have been severally adduced as hypotheses affording plausible explanations. Of each and all such hypotheses the facts are the only true criterion; but it is right that we should bear in mind that, in the present state of our knowledge, the evidence which may give a decided countenance to one hypothesis in preference to others does not preclude their possible coexistence. The analysis of the collected materials, and the disentanglement of the various effects which are comprehended in them, is far from being yet complete. The correspondence of the critical epochs of the annual variation with the solstices and equinoxes rather than with the epochs of maximum and minimum temperature, which at the surface of the earth, in the subsoil beneath the surface, or in the atmosphere above the surface, or separated by a wide interval from the solstitial epochs, appears to favor the hypothesis of a direct action, as does also the remarkable fact which has been established, that the magnetic force is greater, in both the northern and southern hemispheres, in the months of December, January, and February, when the sun is nearest to the earth, than in those of May, June, and July, when he is most distant from it; whereas, if the effect were due to temperature, the two hemispheres should be oppositely instead of similarly affected in each of the two periods referred to. Still there are doubtless minor periodical irregular variations, which have yet to be made out by suitable analytical processes which, by their possible accordance with the epochs of maximum and minimum temperature, may support, in a more limited sense, not as a sole but as a coördinate cause, the hypothesis of a calorific agency so generally received, and so ably advocated of late in connection with the discovery by our great chemist and philosopher, of the magnetic properties of oxygen, and of the manner in which they are modified and affected by differences of temperature. It may, indeed, be difficult to suppose that the magnetic phenomena which we measure at the surface of the globe should not be in any degree influenced by the variations in the magnetic conditions of the oxygen of the atmosphere in different seasons and at different hours of the day and night; but whether that influence be sensible or not, whether it be appreciable by our instruments or inappreciable by them, is a question which yet remains for solution, by the more minute sifting of the accumulated facts which are now undergoing examination in so many quarters.

"To justify the anticipation that conclusions of the most striking character, and wholly unforeseen, may yet be derivable from the materials in our possession, we need only to recall the experience of the last few months, which have brought to our knowledge the existence of what may possibly prove the most instructive, as it is certainly, at first sight, the least explicable of all the periodical magnetic variations with which we have become acquainted. I refer to the concurrent testimony which observations at parts of the globe the most distant from each other bear to the existence of a periodical variation or inequality, affecting alike the magnitude of the diurnal variations, and the magnitude and frequency of the disturbances or storms. The cycle or period of this inequality appears to extend to about ten of our years; the maximum and minimum of the magnitudes affected by it being separated by an interval of about five years, and the differences being much too great, and resting on an induction far too extensive, to admit of uncertainty as to the facts themselves. The existence of a well-marked magnetic period which has certainly no counterpart in thermic conditions, appears to render still more doubtful the supposed connection between the magnetic and calo-

rific influences of the sun. It is not a little remarkable that this periodical magnetic variation is found to be identical in period and in epochs of maxima and minima with the periodical variation in the frequency and magnitude of the *solar spots*, which Mr. Schwabe has established by twenty-six years of unremitting labor. From a cosmical connection of this nature, supposing it to be finally established, it would follow that the decennial period which we measure by our magnetic instruments is, in fact, a *solar period*, manifested to us also by the alternately increasing and decreasing frequency and magnitude of obscurations on the surface of the solar disc. May we not have in these phenomena the indication of a cycle or period of *secular change in the magnetism of the sun*, affecting visibly his gaseous atmosphere or phosphae, and sensibly modifying the magnetic influence which he exercises on the surface of our earth?

"We recognize in terrestrial magnetism the existence of a power present everywhere at the surface of our globe, and producing everywhere effects indicative of a systematic action; but of the nature of this power, the character of its laws, and its economy in action, we have as yet scarcely any knowledge. The apparent complexity of the phenomena, at their first aspect, may reasonably be ascribed to our ignorance of their laws, which we shall doubtless find, as we advance in knowledge, to possess the same remarkable character of simplicity which calls forth our admiration in the laws of molecular attraction. It has been frequently surmised, and the anticipation is, I believe, a strictly philosophical one, that a power which, so far as we have the means of judging, prevails everywhere in our own planet, should also prevail in other bodies of our system, and might become sensible to us, in the case of the sun and moon particularly, by small perturbing influences measurable by our instruments, and indicating their respective sources by their periods and their epochs. As yet we know of neither argument nor fact to invalidate this anticipation, but, on the contrary, much to invest it with a high degree of probability."—*Telegraph Review.*

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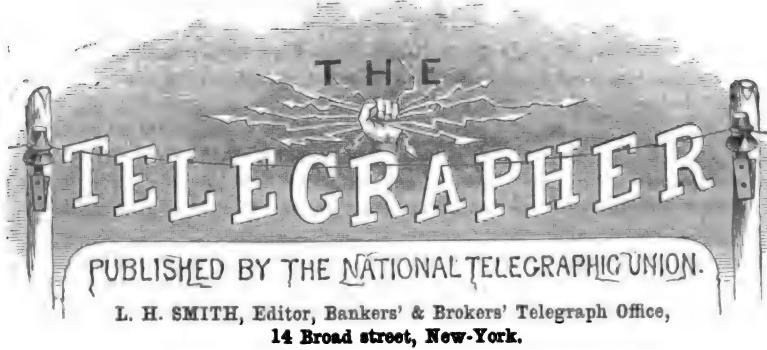
SULPHUR AND ELECTRICITY.—In the year 1846, Dr. Werner Siemens made the first experiment to isolate the conducting wire by means of an envelope of gutta-percha. The gutta-percha, the juice of a tree, similar to India-rubber, had come about this time from the East Indies, via England, into trade, and was found to be an excellent non-conductor of electricity. It is not at all affected by cold water, solutions of alkali, spirits of wine, acid of vinegar, muriatic acid, and even sulphuric acid can only affect it very slowly.

It has the important peculiarity that it can be worked under the influence of heat, and can be wrought into the greatest variety of forms, and by this peculiarity it is possible to envelop the conducting wire in this material.

Soon mechanical means were invented to make this covering of conducting wire from gutta-percha, and these have been brought to the greatest perfection.

When the results of the experiments previously made proved satisfactory, the Prussian Government ordered (in the year 1847) the use of a greater quantity of conducting wire, enclosed in gutta-percha, and three hundred German miles (1880 American or English miles) were made and put down in Berlin.

The want of experience of the peculiarities of the new material, and the then imperfect machinery for covering the wires, as well as the haste in putting them down—caused by the threatening political circumstances of the times—caused many faults in the work, and soon the lines ceased to work. The fault was that the gutta-percha had been mixed with sulphur to preserve it against the *influence of changes in the temperature*, and to increase the power of isolation. But afterwards it was found out that the sulphur mixed with the gutta-percha combined with the copper of the wire and formed sulphate of copper, that the galvanic current dissolved the sulphate of copper, which, penetrating the gutta-percha, made it a *loose, spongy mass* through which the water penetrated, and the isolating cover was totally destroyed.—Schellen's "*Der Electro-Magnetische Telegraph.*"



FRIDAY, DECEMBER 1, 1865.

PERSONNEL OF THE CONVENTION.

CIRCUMSTANCES which we could not control have prevented us from noticing at length the proceedings of the Convention, but we have said a little several times, and hope our readers who are not members of the Union will pardon us if we trespass upon their kindness by a few more conventional remarks.

Ere these pages are under the kindly eyes of our readers, the Convention Proceedings will have reached and been read by the members of our fast-increasing Association.

We expect this photograph of the Convention will be the means of enlightening future delegates as to their duties, and guard them against the errors which were made. We were assailed for recommending the securing of a stenographer, but now think the majority of members will support us in this recommendation. This accurate report will be a corrective of both bad legislation and bad manners.

The great number of slang phrases used is noticeable, and leads us to fear that our Conventions, in time, may descend as low in this respect as the Common Council in this city. This is, perhaps, but a momentary evil, which will hereafter be guarded against.

It seems that delegates worked more faithfully, generally, than at the two previous meetings, and the work was more equally divided, and its whole weight did not rest on the shoulders of a few, as has been the case before.

An understanding as to what is needed seems to have become more general, and the action more intelligent, but yet we discover a lack of completeness.

Mr. Stover, of Boston, was evidently the leader of the Convention, but his remarks lacked the point and directness which they should have had, and continued debate in consequence.

Mr. Patrick was short and pithy, and put many a posing question to the different members, and was generally right on the questions before the meeting, excepting in reference to the jurisdiction of a District, wherein we consider him radically wrong.

Vice-President Young is valuable anywhere. He always exhibits a thorough knowledge of how things ought to be done, and does everything up in a workman-like manner. He is quick and generous, and easily detects the defects of a measure, and always points them out.

Mr. Flanagan has won for himself the soubriquet of "The Gentleman on Thanks." He thoroughly understands himself, is quick and pleasant, and inclined to humor and jocularity, which takes the edge off the usual dullness of a body of legislators.

Mr. Wheeler acted as file-closer to Mr. Stover, who, it seems, he was willing should take the lead. His motions and remarks were good, excepting those referring to THE TELEGRAPHER and its venerable editor.

Mr. Rice spoke a volume in his one resolution, for which we thank him, and commend it to the members.

We must commend both Mr. Merrill and his motion, pointing to the morals of the members, and we hope they will profit by it.

Mr. Wright, of New-Jersey, has our thanks and best bow for his complimentary resolution.

The New-York Delegation were there with their usual trunkfull of bills, motions, resolutions, etcetera, and led by Mr. Edwards, did, as usual, get the major part of them passed, which speaks well for their worth, and the ability of the delegation.

Mr. Seymour proved himself the same quiet gentleman which characterized him at the two previous meetings.

We regret the Chicago delegates were not able to take a more active part in the work in hand, but circumstances were against them. They, however, made up in generous hospitality what they may have lacked in the active part of the Convention.

Too many of the delegates were silent. We were in hopes that the "gentleman from Omaha" had grown courageous, but we look in vain for his remarks. He was capital, though, at button-holing members in reference to business in hand.

We do not find a word from the very efficient Director of the Albany District, who was very correctly sent as a representative.

Messrs. Clark and Yeakle, being new members, acted their parts well, and next year we expect to hear more from them.

California was fortunate in securing so good a representative as Mr. McKenzie. Without reflecting upon any one, we desire to say we have grave doubts of the propriety of an officer acting as a delegate.

We do not forget the President, who presided with unusual dignity, and his rulings and decisions showed a gratifying improvement over his diffidence at Philadelphia.

The Secretary, *pro tem.*, Mr. Vestal, and his assistant, Mr. Priest, won their honors, and merited the thanks bestowed upon them.

Our regrets at being absent are swallowed up by the feeling that the delegates did well, and it is our intention the next ones will do better.

TELEGRAPHIC MISCELLANEA

PERSONS having clean and perfect copies of numbers 2, 3, 4, 5, 6, and 7, of THE TELEGRAPHER, will receive the full price, seventeen cents per copy, for them, if sent to our address. We can furnish reprints of number one, and copies of all numbers from eight to sixteen inclusive. Numbers 14, 15, and 16, are nine cents per copy; all numbers previous to these are held at the old price, seventeen cents.

INTERESTED PARTIES have circulated reports to the effect that the Bankers' & Brokers' Company is in a failing condition, and is to wind up its affairs in a month; also, that the same Company is to consolidate with the United States Company. We pronounce these reports fabrications, and not true in fact.

The first-named company is meeting with a flattering success, and has money enough to keep out of consolidation for a few years at least.

Another story is afloat, said to be circulated by the same parties, that the United States Company are trying to sell out to the American Company. This, we are assured, is untrue.

THE METROPOLITAN FIRE COMMISSIONERS of this city have issued their rules and regulations, among which we find the following:

"Sec 23. The Superintendent of Telegraph shall have the care and management of all the telegraph lines and instruments, and shall keep and maintain them in working order. He shall exercise supervision over, and prescribe the duties of the telegraph operators, man and battery boy in his office, and over the bell-ringers at the bell-towers.

"Sec. 26. All charges for violating the rules of this Department, or neglect of duty, against officers or members of this Department, bell-ringers or telegraph operators, shall be made to this Board in writing."

TELEGRAPHIC communication has been established in this city between the central office, at Fireman's Hall, and the bell towers, the residence of the Chief-Engineer, and a number of the engine-houses.

THE following article appeared in the morning papers of this city just as our last issue was going to press. Having received a call from the gentleman in question the day previous, and being requested not to mention the probable acceptance of this offer made him we did not, and were somewhat surprised to note this publication the following morning. We now publish it for what it is worth. We understand Mr. Reid has accepted :

"TELEGRAPHIC MOVEMENTS.—At a meeting of the Directors of the United States Telegraph Company, held at their office, 117 Broadway, on the 8th Nov., James D. Reid,

Esq., of Rochester, late Superintendent of the Western Union Telegraph Company, was unanimously elected Secretary of the Company, in place of S. C. Hay, Esq., resigned. Mr. Reid has been connected with the telegraph business for the past twenty years, and brings to his position a large experience in the practical details of such enterprises, and a high reputation for skill, ability, and integrity."

THE GENERAL TELEGRAPH COMPANY OF MEXICO.—Mr. Carlos C. Clute, who is the concessionaire of several grants for building telegraph lines in Mexico, has been in our city some time, making arrangements for building lines.

Mr. Clute has associated with him capitalists in Europe and in this city, and we are assured the work will be pushed forward at once, and telegraphic communication established between this city and the City of Mexico, by the first day of July next.

Mr. Clute is the General Superintendent of the company in Mexico, and Mr. J. S. Keeling, 16 Broadway, represents the company in the United States.

COURT OF COMMON PLEAS—TRIAL TERM—Nov. 16.

Before Judge Daly.

Augustus H. Lockwood, *agt.* The Independent Line of Telegraph Company.

THIS action was brought by the plaintiff, a straw-goods dealer in New-York, against the defendants, for a mistake in transmitting a telegram from New-York to Dedham, Mass.

The message intended was: "Stop sewing pedal braid until I see you." The message sent was: "Keep sewing pedal braid until I see you." By this error a large quantity of the braids were manufactured into bonnets of unfashionable shape, which would not sell. The plaintiff testified that the value of the braid was \$2 00 per piece at the time the dispatch was received, though its cost to him originally was but \$1 37, making the value of the braid \$926 00, and that the cost of manufacturing was \$573 75, making his total loss \$1504 75, less, however, the amount received for the bonnets—about \$500 00—leaving his actual damage at \$1004 75.

The defendants moved for a non-suit upon the grounds: First, that the plaintiff was not entitled to recover for the manufacturer's (Bascomb's) work upon the goods, the cause of action, if any, resulting only to him; second, that plaintiff having settled with Bascomb, and accepted and received the property in the injured condition, could recover only the amount paid for the message.

The court denied the motion, and submitted the case to the jury. The counsel for the defendant requested the Court to charge further that

1. The dispatch delivered to Bascomb was not the plaintiff's, and conveyed no direction or authority from the plaintiff to Bascomb to do anything whatever.

2. That the plaintiff was at perfect liberty to reject the property as manufactured by Bascomb, and there was no legal obligation resting upon him to pay for the work done upon it.

3. That the plaintiff having voluntarily accepted the property in its injured condition, and paid Bascomb for doing the work upon it, which the plaintiff had not authorized, he cannot recover damages beyond the amount paid by him for sending the message.

4. That if the plaintiff is entitled to recover in this action, the jury should not allow him anything on account of the money paid by him to Bascomb for manufacturing after sending the dispatch.

The Court declined to change these propositions, and the jury rendered a verdict for the plaintiff for \$1004 75.

SAN FRANCISCO, Saturday, Nov. 18, 1865.

THE Alta California has news of the arrival of the expedition of the Western Union Telegraph Company at Petropalowski, Russian Siberia, on the 16th of October. From the time the expedition left this port everything has worked like a charm. The most sanguine could not have expected to succeed better. No accidents have happened. They have landed all the parties necessary to carry out the explorations projected, and they had gone to work vigorously. They can but anticipate great results by another year.

Everywhere they have been most cordially received. Every assistance has been given by all. The expedition left Sitka August 23d, reaching the Redoubt St. Michael September 13th, where they left Major Kennicott's party bound for the Youkan or Knickapak River country. The following is the list of this party: Major Robert Kennicott, W. H. Ennis, Joseph T. Duzer, Thomas C. Dennison,

Frank Ketchum, J. B. Chappell, Richard Colter, Frederick K. Smith, George Adams, O. De Budelin, Charles P. Lewis, Andrew Greenburgh, Michael Higberg, J. M. Bean, W. Bannister.

Since leaving Sitka the expedition has completed this season's work. At Michael they established a depot of supplies under charge of J. M. Bean. The party under Kennicott took with them the little steamer Lizzie Horner, and were furnished with everything necessary.

We have made thorough and extensive soundings in Norton Sound, as far north as Behring's Straits, and there are no difficulties in the way. The native tribes in Northern Siberia, who it was feared might throw obstacles in our way, seem anxious to assist us in everything, and express themselves much gratified at the prospect of employment. The party which is to ascend the Anadyr River, is probably well advanced by this time.

Col. Bulkley left the party at Plover Bay with a steamer, intending to visit the Gulf of Anadyr; and we learn here of the safe arrival of the Olga with the party under Major Abasa in August, at the mouth of the Amoor River. Major Abasa and two others left six weeks ago for the Penjins Gulf, whence he would proceed north, if possible, to meet the Anadyr River party. Messrs. Mahon and Bush left Nickolaski, bound also to the north. The work is being most vigorously prosecuted in all directions.

All the parties which it was proposed to dispatch this year, are already well started, and, judging of the success of the future by that of the past, it is confidently hoped greater progress may be made during the coming year. Much credit must be awarded Col. Bulkley and Capt. Scannon, for the energy with which this season's work has been prosecuted. The expedition will probably leave here direct for San Francisco, immediately after the arrival of the steamer with Col. Bulkley (now daily expected), and hope to reach your city by Dec. 1, if not before. All are well on board.

CHANGES, ETC.—Mr. W. L. Biggert, formerly of the Western Union Company's Louisville office, was appointed, on the first of July last, Superintendent of Telegraph, and Train Dispatcher, on the Louisville and Frankfort and Lexington and Frankfort railroads.

Mr. A. S. Hawkins, formerly of the Illinois and Mississippi Company's Chicago office, has been appointed to the management of the United States Company's Toledo office.

Yankee Sullivan, formerly of the South-Western Company's Nashville office, has taken a position in the Western Union Company's Detroit office.

Mr. G. B. Cowlan, formerly of the Western Union Company's Detroit office, has gone to the South-Western Company's Nashville office.

Mr. James Bay, formerly of the Western Union Company's Detroit office, has accepted a situation in this Company's Buffalo office.

Mr. Geo. Warren has resigned the management of the United States Company's Buffalo office, and has taken a position as operator wth the Western Union Company's office, same city.

Mr. W. H. Sawyer, formerly Assistant Night Manager of the American Company's New-York office, has resigned his position, and accepted that of Assistant Manager of the Insulated Line Company's Philadelphia office.

The career of this young man has been something remarkable. He is but just past eighteen years of age, and now fills easily a position which many an older person is incapable of filling properly. He entered the American Company's New-York office in the summer of 1861, when but fourteen years old, and in less than four months was put upon their city line as a "sound" operator, where he quickly rose to the position of chief operator. In 1863 he was put upon a report wire to Washington, working alongside men who had "grown gray in the service," doing acceptably every duty imposed upon him. About a year ago he was put in charge of the wires which served the "Bulls and Bears" at Gallaher's Evening Exchange in Fifth avenue (not an easy position), and acted as Assistant Night Manager.

We never knew him at fault with any system of wires—switch or repeater—no matter how complex or intricate. We have told of but a few of his accomplishments, but our space prevents further remarks.

Mr. J. D. Walsh, late of the Western Union Company's

Schenectady Office, has resigned his position and retired from telegraphing. Mr. C. E. Porter, of Rochester, is his successor.

J. H. B. & OTHERS, ST. LOUIS.—Rules of telegraphy do require that all written amounts shall be specified in figures in parenthesis.

In all business, telegraphy not excepted, almost since business commenced, it has been the rule to write out amounts and follow them with the figures. This is done to prevent mistakes in reading bad writing. Figures, except in dates and numbers, are not recognized, and usage makes it imperative to duplicate sums in this way. It is not used to designate the number of words, but to prevent mistakes in whatever way they may be likely to occur. Messages should be sent according to the original copy, unless a correction can be obtained without delay. The transmitting operator should, in our opinion, note his supposition, as to the meaning of any doubtful word or ambiguous phrase, at the end of the message, so that the receiver may be aided in understanding his telegram.

PERSONAL INTELLIGENCE.—Charles W. Lundy, Esq., Superintendent of the Atlantic Telegraph Company, who has been on a visit to the United States for a few weeks, sailed in the Java on Wednesday, 16th ult., *en route* for London.

GONE SOUTH.—Mr. Jesse Painter, who has for many years past been the very efficient operator-in-chief (?) in this city, on the Camden and Amboy Railroad line, has purchased a farm in "Ole Virginy," sixteen miles south of Washington, on the direct road from that city to Fredericksburg, and has bid adieu to the profession, but not to the fraternity, whom he will always welcome to his new home. Success and a long life to our friend.

CHILI is making every preparation possible to carry on her war with Spain. Telegraph lines and roads are being opened into the interior, and thirty-six coast towns have been declared ports of Chili.

WHY is electricity like the police when they are wanted? Because it's an invisible force.

ONE of the buoys left by the Great Eastern to mark where the Atlantic cable parted, was lately seen by a vessel in longitude 34° 48', over five hundred miles east of the point where it was planted.

EXTENSION OF TELEGRAPH FACILITIES SOUTH.—The United States Telegraph Company have completed their line to Richmond, Va., and the office in that city was opened for business on Tuesday, 28th ult. The line is in first-rate working order, and will be extended to Petersburg within a short time, and will be pushed southward as rapidly as possible.

COPENHAGEN, Nov. 17.—The King of Denmark has given to Messrs. James Wyld, Capmann & Co., a concession for laying a telegraph between England, Norway, and North America, by way of Greenland.

MARRIED.

In Philadelphia, on Sept. 3d, 1865, by the Rev. Wm. T. Eva, Mr. Jos. S. Greene, of the Western Union Company's Office, to Miss Anna Elizabeth, daughter of Christopher Bowen, Esq., all of Philadelphia, Pa.

QUOTATIONS OF TELEGRAPH STOCK.

Western Union,.....	\$100 shares.....	60
American,.....	"	128
Russian Extension,.....	\$100 shares.....	30
United States,.....	"	57

L. G. TILLOTSON & CO.,
MANUFACTURERS AND DEALERS IN
Telegraph Machinery and Supplies.
OF EVERY DESCRIPTION,
No. 26 DEY STREET, NEW-YORK.

The undersigned (late of Tillotson & Co.), having completed arrangements for the resumption of the above business, solicits the patronage of his old friends and customers, who may feel assured of the prompt execution of any orders with which they may favor him. Our catalogue embraces every article required in the construction and operation of Telegraph lines.

L. G. TILLOTSON.

THE TELEGRAPHER.

DISTRICT DIRECTORS.

	Tel.	Office.
NEW-YORK.—W. Steinhoff, United States	"	"
BOSTON.—H. W. Wheeler, American	"	"
PHILADELPHIA.—Jos. S. Greene, W. U.	"	"
BALTIMORE.—J. B. Yeakle, American	"	"
WASHINGTON.—T. H. Sherman, American	"	"
ST. LOUIS.—W. Stoneback, W. U.	"	"
CHICAGO.—A. H. Bliss, W. U.	"	"
LOUISVILLE.—W. DeGrove, W. U.	"	"
NASHVILLE.—D. O. Dyer, U. S. Mil.	"	"
Memphis, Tenn.	"	"
DETROIT.—T. W. Priest, W. U.	"	"
MAINE.—O. I. Collamore, American	"	"
Bangor.	"	"
ALBANY.—A. L. Whipple, N. Y. C. R. R.	"	"
UTICA.—J. B. Sabine, W. U.	"	"
ROCHESTER.—J. H. Crane, W. U.	"	"
CALIFORNIA.—M. Hodge,	"	"
Carson City, Nev.	"	"
NEW-JERSEY.—J. A. Wright, American	"	"
Trenton.	"	"
PITTSBURG.—Geo. A. Hamilton, U. S.	"	"
HARRISBURG.—J. B. Lyndall, W. U.	"	"
CINCINNATI.—B. B. Glass, W. U.	"	"
St. JOSEPH.—W. H. Woodring, Box 1021.	"	"
OMAHA.—Frank Lehmer,	Tel.	Office.
INDIANAPOLIS.—G. W. Babbitt, Bellefontaine Railway Telegraph Office.		
TOLEDO.—A. S. Hawkins, U. S. Tel. Office.		

DISTRICT PROCEEDINGS.

INDIANAPOLIS DISTRICT.—Fifth meeting, at Bellefontaine Railroad Office, 8½ P. M., Sept. 10th. Called to order by R. G. Worth, District Director *pro tem.*

Minutes of last meeting approved.

Mr. C. W. McReynolds' resignation read and accepted, and Mr. G. W. Babbitt elected by a vote of nine to one to fill the vacancy. Adjourned.

Meeting held at Bellefontaine Railroad Office, 9½ P. M., Sept. 18th. Called to order by G. W. Babbitt, District Director.

Minutes of the last meeting approved.

Resignation of Mr. Bauer as Secretary, compelled by change of residence, accepted. On vote being taken for Secretary, to fill the vacancy, Mr. Bremer was declared elected by a unanimous vote.

Mr. Zeublin read his report of proceedings at Chicago. Heartily approved. On motion of Mr. Zeublin, a vote of thanks was tendered Chicago District for kindness shown him as our delegata. On motion of Mr. Worth, a vote of thanks was tendered Mr. Zeublin for his able services at Chicago. Adjourned.

First regular meeting of this District, held Monday evening, Oct. 2d. Called to order by the Director.

Minutes of last meeting approved.

Treasurer's report accepted.

The following-named gentlemen were elected members: D. Beal and T. Wright, Bellefontaine, O. Adjourned.

ST. JOSEPH DISTRICT.—Regular meeting held Nov. 5th. Meeting called to order by the Director. After few remarks by the Chair relative to the inability of this District to hold their regular meetings for the past two months, in consequence of bad working of lines and non-attendance of members, meeting proceeded to the regular order of business.

John D. Cruise, of Wyandotte, was elected a member by a unanimous vote. On motion of Mr. Martyn, it was resolved that this District would like to learn through the columns of THE TELEGRAPHER what was accomplished at the recent Convention in Chicago.

The Treasurer then called attention to the case of B. McMurtire, of Fort Leavenworth, who, he stated, had neglected to pay his dues since March 31st, although frequently notified, and recommended his expulsion from the District. Mr. McDill moved that the Chair appoint a committee of two to investigate the matter and report at the next regular meeting. Carried unanimously. The Chair appointed Messrs. Martyn and McDill.

Mr. McDill then offered the following: "Resolved, That our heartfelt thanks are due to Mr. S. P. Peabody for the energetic, prompt, and efficient manner in which he discharged his duties as Director and Treasurer of this District during the past year." Adopted unanimously.

The Chair desired to get the expression of the meeting upon the practicability of changing the day and hour for holding regular meetings. Considerable discussion was had upon the subject, but without coming to a conclusion meeting adjourned.

HARRISBURG DISTRICT.—Regular meeting held Nov. 8th. Minutes of last meeting approved. Mr. Wm. B. Wilson, Sup't N. C. R. R. Tel. lines, was elected unanimously a member of this District. Upon motion, the Director was requested to appoint a committee of two to draft suitable resolutions, extending a cordial invitation to all eligible operators in the District to come and join us. Wm. B. Wilson and S. K. Rupley were then appointed to compose said committee. Adjourned.

WASHINGTON DISTRICT.—Special meeting called Oct. 21st. Met at 8:30 P. M. Not a quorum present. Adjourned.

Regular meeting Nov. 4th. The committee appointed to inquire into the expediency of giving a ball submitted a majority report. Committee was increased in numbers, as suggested in the report, and invested with full power to make all necessary arrangements for a ball, to be given at such time and place as they deem proper.

Messrs. A. G. Hancock, U. S. Mil. Tel., and J. L. Strickland, B. and B. Tel., were elected members.

Resolution offered by Mr. Atwater increasing the fine for non-attendance to fifty cents. Tabled.

By Mr. Young—"Resolved, That hereafter no voting by 'proxy' shall be allowed in any meeting of this District." Tabled.

Adjourned 10:30.

By request of three members a special meeting was immediately called.

On motion of Mr. Clarke, rules were suspended, and Mr. Young's resolution in reference to voting by proxy taken up and passed.

Mr. Atwater's resolution, increasing non-attendance fine was also taken from the table, and after spirited discussion vote commenced and left open to obtain full vote of the District.

Adjourned.

CHICAGO DISTRICT.—Adjourned meeting called to order Nov. 8 by the Director. In the absence of the Secretary Mr. E. B. Chandler was appointed Secretary *pro tem.*

Minutes of last meeting were approved. The report of the Treasurer was read and accepted.

The Director also read his report as to the financial and general standing of members.

Messrs. C. B. Smith, Wm. L. Altmyer, Frank G. Churchill, of Chicago, O. D. Sloat, of Laporte, Ind., and Albert M. Shepard, of Coldwater, Mich., were elected members.

Mr. Cord moved that the number of members necessary to constitute a quorum be reduced to six. Rejected. The thanks of the District were tendered Mr. W. A. Walker, of the Ill. and Miss. Co.'s city office, for an elegant account-book presented by him to the Treasurer. After transacting other business of local importance only, adjourned.

ST. LOUIS DISTRICT.—Regular meeting held Nov. 8th. Meeting called to order by the Director. Secretary being absent, Mr. Losey appointed Secretary *pro tem.* Minutes of preceding meeting dispensed with on account of absence of Secretary.

Mr. McKenzie offered a regular order of business, which, with some slight amendments, was acted upon and adopted.

Mr. Tracy moved that the rules for admitting new members be dispensed with at this meeting. Carried. Messrs. McCoy, Wm. Gibson, and Hardin Case were then separately balloted for, and all unanimously elected members.

Mr. Stoneback proposed the name of N. C. Pamplin for membership.

Mr. Crain offered Local Treasurer's report, which was accepted.

The report of the delegates to the Convention was then read, accepted, and filed.

The following resolutions were offered by Mr. McKenzie:

"Resolved, That our sincere thanks are due and hereby tendered to the Chicago District for the magnanimous and kind manner in which they entertained the members of this District at the late Convention."

"Resolved, That a copy of the above resolution be sent to the Chicago District."

It was also

"Resolved, That the thanks of each and every member of this District be and are hereby tendered to Messrs. Crain, Seymour, and Partrick, delegates from this District to the late Convention, for the able and highly creditable manner in which they performed the arduous duties devolving upon them."

Mr. Hammond offered the following resolution:

"Resolved, That the sincere thanks of this District be tendered to John Horn, Jr., of New-York, for the presentation of photographs of eminent American telegraphers to this District, and a copy of this resolution be sent to Mr. Horn."

"Resolved, That a copy of the above resolutions be sent to THE TELEGRAPHER for publication."

Resignations of W. W. Leavens and J. L. Sears were accepted.

Mr. Crain gave notice that certain members were subject to expulsion for non-payment of dues, after having been repeatedly notified, and moved that this meeting take some action regarding them.

The cases of all the persons named were acted upon separately, and unanimously expelled.

It was also moved that George P. Lenox be *disgracefully* expelled from the Union, and his name so published in THE TELEGRAPHER. *Unanimously carried.*

Also that A. Craig and P. Mullsky be notified of back dues, and action regarding them be taken at our next regular meeting.

Mr. Crain moved that a committee be appointed to look further for a room to be *devoted specially* for the use of this District. Messrs. Crain, McKenzie, and Losey were made such committee.

Mr. McKenzie moved to change the number of members to form a quorum from ten to eight, which was laid over until next meeting.

TOLEDO DISTRICT.—First regular meeting held on the 3d of November, the Director in the chair.

Minutes of the special meeting held on the 23d day of October, for the purpose of organizing the District, approved.

The following motions were made and carried: By Mr. Dawson that the District Secretary be instructed to forward to the Treasurer of the Union the initiation fees collected, requesting him to forward forthwith the necessary documents for forming our District, and also a copy of the New-York District By-Laws. Also that Messrs. Hawkins and Murray constitute a committee to draft By-Laws for the government of this District.

By Mr. Murray, That the Director appoint a committee of one to solicit subscriptions for THE TELEGRAPHER. The Director appointed E. P. Murray to act in that capacity.

As the time of holding our regular meetings had not been decided upon, Mr. Fish moved that we hold them the first Sunday of each month, at three o'clock P. M., to suit the convenience of those that would be unable to attend at any other time. Carried.

Mr. John O'Connor, of Fort Wayne, Ind., was elected a member.

There being no further business before the meeting, Mr. Murray moved an adjournment until the first Sunday in December, at three o'clock P. M. Carried.

PITTSBURG DISTRICT.—Regular meeting held Nov. 7th The Director presiding.

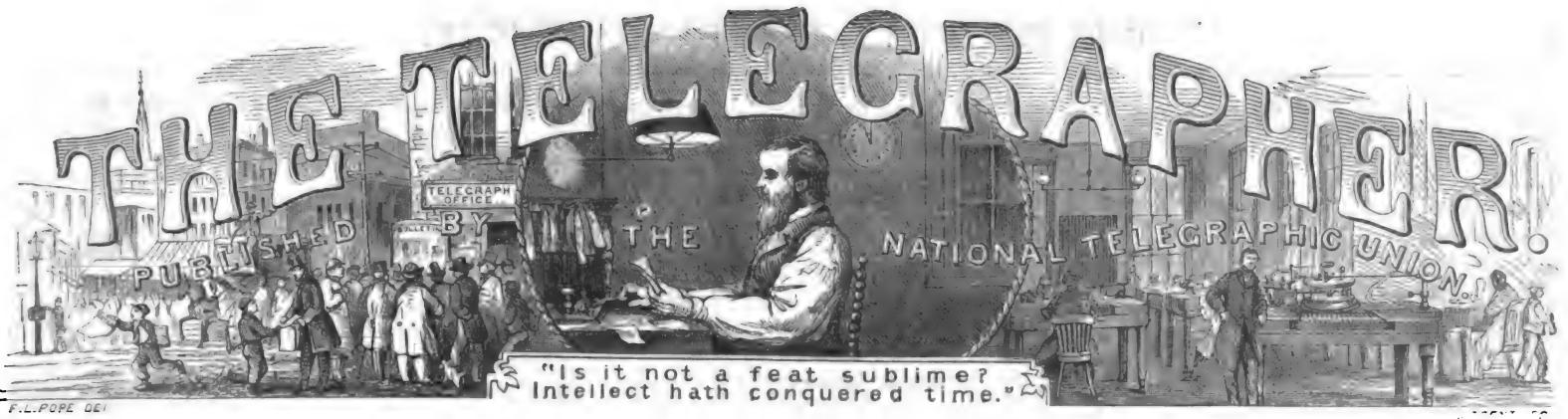
On motion of Mr. Markle, Mr. Flack was appointed Secretary, *pro tem.*

Minutes of the last meeting approved. Mr. Markle offered the following:

"Resolved, That the thanks of this District are due and are hereby tendered to Mr. E. B. Chandler and the members of the Chicago District for their uniform kindness, courtesy, and liberal hospitality which was extended to our delegates to the recent convention held in Chicago."

"Resolved, That a copy of the above resolution be forwarded to the Director of the Chicago District, and also to THE TELEGRAPH for publication."

Mr. Kelchner having given the required notice, withdrew from the Union, the same being accepted with regrets. Mr. K. is engaged in other pursuits. Adjourned.



Vol. II.

New-York, Friday, December 15, 1865.

No. 18.

GENERAL OFFICERS

OF THE

NATIONAL TELEGRAPHIC UNION.

C. W. HAMMOND, PRESIDENT, P. O. Box 8120, St. Louis, Mo.
W. H. YOUNG, VICE-PRESIDENT, U. S. Tel. Office, Washington, D. C.
L. H. SMITH, TREASURER, B. & B. Tel. Off., 14 Broad St., N. Y.
J. C. UPHAM, RECORDING SECRETARY, P. O. Box 4064, Boston, Mass.
S. P. PEABODY, CORRESPONDING SEC'T, Box 1081, St. Joseph, Mo.

GUTTA-PERCHA.

THE gutta-perch tree belongs to the natural sapote family, and is a native of Borneo, Malacca, and other islands of the Eastern Archipelago. The tree generally attains a large size, say from sixty to seventy feet in height, and from two to three feet in diameter. Its general appearance resembles one genus durio, or the durian, but the under surface of the leaf is of a more reddish brown than in the durio, and the shape is somewhat different. The timber of this tree is not valuable; but the natives express an oil from the fruit which they are accustomed to use with their food.

The localities it particularly likes are the alluvial tracts along the foot of the hills in the Archipelago, where it flourishes luxuriantly, forming in many spots the principal portion of the jungles. But, notwithstanding the indigenous character of the tree, its apparent wide-spread diffusion, it is feared that gutta will soon become a scarce article if some more provident means be not adopted in its collection than those generally used by the Malays and Chinese. Only a short time ago the gutta-percha tree was very abundant in the Island of Singapore, but already all the timber has been felled, and nothing but small plants are now to be found.

The mode by which the natives obtain the gutta is by cutting down the trees of full growth, and ringing the bark at distances of about twelve to eighteen inches apart, and placing a cocoa-nut shell, or such like receptacle, under the fallen trunk, to receive the milky sap that immediately exudes upon every fresh incision. The sap is collected in bamboos, taken to their houses, and boiled, in order to drive off the watery particles, and insipidate it to the consistency it finally assumes. Although the process of boiling appears necessary when the gutta is collected in large quantities, if a tree be freshly wounded, a small quantity allowed to exude, and it be collected and moulded in the hands, it will consolidate perfectly in a few minutes, and have all the appearance of the prepared article. The quantity of gutta obtained from each tree is about ten catties (a catty being 1333 lbs.) It requires the destruction of at least ten trees to produce one picul (the picul is 1320 lbs.) Now the quantity exported to Europe and America up to this time exceeds fifty thousand piculs, to obtain which each reader may calculate the number of trees sacrificed. It would be much better to adopt the method of the Burmese in obtaining caoutchouc from the *Ficus elastica*, that is, by making oblique incisions in the bark, placing bamboos to receive the sap, which runs out

freely, rather than to kill the goose in the manner they do at present.

Previous to 1844 the very name of gutta-percha was unknown to commerce. The attention of a Dr. Montgomery, a surgeon of Singapore, was directed to this remarkable product of nature, by finding it sometimes used by woodcutters as handles to their tools; and to him belongs the merit of introducing it into England, and for which he received a gold medal from the Royal Society. Since that period its admirable properties have been more fully discovered, and it is now rapidly and extensively coming into use for articles of domestic manufacturing and ornamental purposes. In England it is much used as soles for boots and shoes, as it wears well, protects the feet from damp, and is economical. It has given employment to thousands in Europe and America, and also to the gatherers in the Indian Archipelago, and at present forms the most profitable article of export.

History.—Gutta-percha was first introduced into England for purposes of manufacture, by Richard Archibald Broome, of London. To him letters patent were granted for some of its applications in 1844 and 1845. Others were granted, May 20, 1845, to Christopher Nickoles, for its application to bookbinding, etc. May 29, 1845, letters patent were granted to Charles Keene, of London, for its application to boots, shoes, hats, and all articles of wearing apparel. September 4, 1846, letters patent were granted to a Quaker of Dublin, by the name of Bewley, for its application to the manufacture of flexible syringes, tubes, bottles, hose, and articles of a similar description. Three letters patent, dated January 12, 1846, May 15, 1846, and February 15, 1847, were granted to Charles Hancock, of London, for the manufacture of machine bands, cords, etc. For the first two years (1845 and 1847) after the introduction of gutta-percha as an article of commerce and manufacture, it was confined to England. This will occasion no surprise, when we consider the shrewdness, the energy and enterprise with which the article was managed by the English patentees. As soon as it was discovered that gutta-percha had any value for manufacturing purposes, the Dublin Quaker and others purchased all the patents in England, formed a gigantic company, enlisting in it many members of the East India Company, and at once commenced the manufacture of gutta-percha in all its branches. This Company immediately applied for letters patent in France, Germany, and the United States. So that scarce had the name of the article reached the public ear before a vast monopoly, with one of the richest banking-houses in England at its head, was formed. As early as May, 1846, William S. Wetmore, Esq., an eminent merchant of the city of New-York, received from one of his agents at Singapore, a few bundles of whips made by the natives of that country. Always distinguished for sagacity and enterprise in his business movements, this gentleman became at once exceedingly anxious to know more of this substance. Himself a pioneer of the Island of Borneo, and well acquainted with the resources of that and the neighboring islands, he ordered his agents to purchase the raw material and ship it to the United States.

In the summer of 1846 Samuel T. Armstrong, of New-York city, well known for his numerous and important contributions to the useful arts, received from one of the directors of the East India Company specimens of gutta-percha, in its crude and manufactured state, with an invitation to visit London for the purpose of effecting some arrangement with that company by which the article might be introduced into the United States.

He arrived in England about the first of April; visited all the gutta-percha manufactories there and on the continent, and finally made arrangements for the purchase of the patents granted by, or to be granted by, the United States to Broome, Hancock, Bewley, Keene, and Nickle.

Mr. Armstrong returned to the United States in the fall of 1847, and immediately applied himself to the construction of the necessary machinery. This being accomplished, *The American Gutta-Percha Company* was formed, and at once began the manufacture of gutta-percha, in some of its most important branches. The business has, thus far, outrun the most sanguine expectations of its projector, and has advanced so rapidly, as now to require an enlargement of the original basis of operations. Its capabilities of application to so many of the staple articles of our country, aside from its employment in the department of the ornamental arts, gives to its manufacture an almost boundless extent.

In seeking for a protection to the telegraph wires, from atmospheric influences, by which the machinery of the offices had frequently been destroyed, gutta-percha was seized upon as the great desideratum. It was first used for this purpose by Hugh Downing, Esq., on a portion of the New-York and Philadelphia House Telegraph Line, but with little advantage. In the heat of summer it becomes soft and flabby, and loses its equalized surface on the wire. Exposed to the air, also, it shrinks and cracks, and is, therefore, wholly unsuited to all telegraphic purposes where exposure to sun and air is necessary.

Its chief value is in submersion under water, where it assumes an increased rigidity, and is the best protector to the galvanic current from mixture with the surrounding water, yet discovered.

Many of the principal lines use no other covering upon their submerged wires in the numerous rivers and canals crossed in this way, and the protection is found to be perfect. The wire, in such cases, is usually covered with three coatings of the gutta-percha, and sunk by means of weights, resembling the "chairs" of a railroad, placed fifty feet or more apart, and to which it is attached.

The great evil to which such lines are exposed, is in the passage of lightning. Of course, so near the water, there is a strong tendency to reach it, and often do so by making a small puncture, sometimes not larger than might be made by the prick of a pin, through which it reaches the earth. This puncture presents a escape thereafter, to the current of the batteries, renders the line difficult to operate, and has, finally, to be abandoned for another.

This difficulty, however, can easily be obviated by care at either shore. We will, at another time, illustrate this more fully.

The *New-York Times* thus describes the capabilities

and uses of gutta-percha. After referring to the great extension of the India rubber trade, it says:

"While the India-rubber trade was thus dawning and perfecting, the great original forests of Malacca and Borneo, which had so long shaded the peninsula and island, held in their rich trunks a new material, unknown to the world, but which was destined to become of incalculable value. The trees were of a different order from the India-rubber, and their product is distinct and dissimilar. Dr. Montgomery, an assistant surgeon at Singapore, discovered in the hands of a native the handle of a wood-chopper, of such singular material that it awakened his attention, and on inquiry, he found it to have been made of the gum of this strange tree; becoming plastic when dipped in hot water, and when cold, regaining its original stiffness. This was only ten years ago, but in this short period, the exudations of these dense forests have assumed, more especially in England, innumerable forms. This gum has qualities entirely differing from the sap of the India-rubber. It cannot be worn out. It can be melted and re-melted, and repeatedly re-moulded, without changing its properties, or losing its virtue. It is lighter than rubber, possesses certain repellent properties unknown to that material, is non-elastic, much harder and of finer grain, and of superior density and toughness. Cold water does not affect it; it is a non-conductor of heat and electricity, disregards alkalies and acids, laughs at frost, and displays certain important acoustic qualities. But there were great difficulties in the way of its application to many of the uses to which rubber was capable. Its stiffness and its non-elasticity, and its disposition to melt under a higher degree of heat, prevented the accomplishment of anything else, than the mere conversion of the raw material into different shapes, having great hardness and no pliability. Eminent chemists, through several years, toiled in vain for the secret they believed to exist, which should endow the percha with the elastic qualities of vulcanized rubber, without depriving it of its superior properties. But it remained for the Messrs. Ridders, of our own city, to unlock the hidden secret, and to discover the art of superadding pliability, in different degrees, to the strange capabilities this wonderful gum already possessed. The range of its uses is thus indefinitely enlarged. It were easy to enumerate a thousand applications, and new ones are suggested every day."

"It carries the Croton through a tube of a thousand feet in length, from New-York to Blackwell's Island, and does not mingle with the water any of the hurtful material which metallic pipes impart. Beneath the waves of the British Channel it sheaths the uncorroded wire, and brings Paris and London within the limits of a watch-tick. Its tubes remain buried in damp ground, without injury, for years. By attaching one end of a tube to a gas-pipe, light may be conveyed by hand to every portion of the building. It has especial qualities for the transmission of sound. It conveys the voice to the ear of the deaf, enables it to speak to the engineer through the rear of a railway train, carries domestic messages to different parts of the house, opens the closed ears of a congregation to the words of a minister, and faithfully transmits the slightest whisper to the miner in the lowest depths. For bleaching and chemical purposes, its resistance to acids makes it particularly available. For pump-barrels, siphons, and suction-pipes, it is growing into extensive use. The recent discoveries of our townsmen now make it an absolute necessity for boots and shoes, clothing, car-springs, belting, carriage-cloths, and a whole army of appliances. A thin coating, spread on the finest silk, forms a fabric light, beautiful, and glossy, dark or light, and perfectly water-proof. While it may receive the elasticity of India-rubber, it has the advantage of assuming the stiffness and density of bone. In opposition to every known law of physics, it contracts with heat. When spread on cloth, a given quantity covers a half more surface than the same amount of India-rubber, and presents a natural polish, which rubber can only receive by a coat of varnish."—*National Telegraph Review.*

Employment of Women as Telegraphers.

To The Editor of the New-York Times:

In the report of the "National Telegraphic Union Convention," held at Chicago, September last, we notice the following:

Mr. Flanagan, of Louisville—I move that it be

"Resolved, That, in the opinion of the Convention, female telegraph operators, whose qualifications are equal to the requirements of the Constitution, are entitled to membership in the Union."

I don't think the subject needs any discussion. I think that thing can't need any discussion at all. I urge this, because, if ladies are good operators (and some of them are), it seems to me they are just as competent to be members of the Union as we are.

Mr. Stover, of Boston—I have something to say in opposition. I hope no resolution of that kind will be passed here. If it does pass, it will go forth as the sense of this Convention that *female operators should be placed on the same basis as male operators*, be admitted to the Union, and entitled to all its benefits and advantages. It appears to me, this organization, from what I have heard of its history, has discussed that matter most fully, and that it was their opinion that female operators were no honor to the profession. I wish to state it as my individual opinion that female operators are no honor or ornament to the profession, and that the whole spirit of our action in this Convention, and in the past, has been to do all in our power to elevate the profession, and we have guarded it as much as possible from admitting any persons, male or female, into the Union, who would not be an honor to it. So far as my experience goes as to female operators it is this—while as a class they are highly respectable, yet as operators they are no honor to the profession. For this reason more than any other, because their advantages in early life and their training are not such as to give them an acquaintance with business matters generally, the result is constantly making blunders to such an extent that I know every telegraphic superintendent who has had them employed on their lines in positions of importance, has found that they were not competent to perform the duties, and as fast as possible they are weeding them out. I trust we shall do nothing to bring them into the Union. I don't want to express my views at great length, because I deem it unnecessary.

Mr. Stover, we beg leave to agree with you in your last remark, and heartily regret that the impression given the mental world of the "National Telegraphic Union" should be so unmistakably pernicious. Supposing your Convention should do itself the honor to say it was a fit society for the admission of refined, intellectual women, and that, professionally, *some* of them were on a basis with yourselves, and should be entitled to all its advantages. Would it harm you in the least? Show me even the shadow of disadvantage it would cast upon you and I will be satisfied. On the contrary, it would raise you in the scale of being, and we might benefit you as much or more than the advantages we might derive from such a membership. History has yet the task unperformed of recording one instance of a woman's being a hindrance or a detriment to any like organization. If there are any benefits likely to proceed from your association, why should we not be sharers? Do you expect people to accept your mere declarations to that effect without examining the merits of the case? You do not admit men who come not up to the requirements of the Constitution—why exclude ladies who deserve respect and encouragement? It is a matter of unmitigated selfishness which admits of no excuse. Why so blind to the fact that in benefiting woman you benefit yourselves, and that in proportion as you exclude her from equal advantages with yourselves, you warp your own souls, for while you stop to put hindrances in her way you stop in your onward progress, and admit the fact that she must be kept back or she keep by your side. If nothing more can be awarded us it is cheering to note your respect, however unwillingly betrayed, by your trying to

convince the business world we are unable to do business correctly. People never stop or stoop to quarrel with those whom they know to be beneath them.

There are lady telegraphers who are both an honor and an ornament to the profession. Facts substantiate their success much too strongly for any false statements to influence, and instead of superintendents being "weeding them out," they are most of them opening the door still wider for their employment, and in many cases award them the meed of being more efficient than men. True, we have not had the years of practice of some of you, and so far as the mere transmission of messages goes, average the matter. The number of lady telegraphers is small compared with those of the other sex. Take both as they come, and for sterling principles, zeal and interest for those who employ them, steadiness during business hours, neatness in offices, polite treatment of customers, honesty in financial matters, etc., we are more than even with you. Supposing you excel in the one particular mentioned first, we more than make up for it in other qualities, and such is the verbal testimony of those who are competent to judge. I speak intelligently in this matter, and such bearing the case shall speak plainly. We do not wish you to admit us to an equality with yourselves, for we claim more than that already. We come to honor yourselves and your profession, we being no hindrance, no disgrace to either, but would join hands with you, seeking to elevate both, as also ourselves. That we have already benefited you can be fully illustrated. There is a semblance of kindness and charity in the remarks, "because their advantages in early life," etc. There are mistakes made by telegraphers of both sexes, and when you take into consideration early training, amount of practice, and opportunity for development, we still claim at least equality. Very few of us have been put in places of responsibility, where we could develop and cultivate business tact and capability. Some of the few who have been thus favored are an honor to the profession, while others, not wisely chosen, being unfit for such responsibilities—like men possessing like deficiencies in character—have failed. Why should the former be blamed, and those examples held up for public gaze, while the latter are not mentioned, but the opposite side of the question, and those who do nobly and well, only are cited. Suppose, for the sake of argument, we admit your superiority. Even then, does not the course you advocate reflect a broad glare of selfishness? We must have occupation; none more fitting than this, and by helping and encouraging us, you help to cure the evils resulting from wrong training and education, and influence us to emulate better business characters, and a thirst for more thorough education, while by opposition you injure yourselves, and do no one any good. The true interest of every individual, as well as of every class of human beings, is so closely bound up in that of the race, that if man will be but prevailed on to act with true generosity to women, he will soon find that generosity redound to his own advantage.

M. E. LEWIS.

NEW-YORK, Nov. 19, 1865.

SEA-WEED AS AN INSULATOR.—We understand that experiments have been made to test the value of sea-weed as utilized by M. Ghislain, of Hatton Garden, who gained the prize medal for manufactured articles made from this substance, and placed in the International Exhibition of 1862, and which it is now proposed to apply in the manufacture of the next Atlantic cable. Several specimens of a submarine cable made from this patented algaeite have been tested by eminent scientific men, who have reported most favorably as to its merits. The advantages are said to be that it is a perfect non-conductor of electricity; it readily combines and amalgamates with rubber, gutta-percha, and other gums; it will resist the influence of salt water when other supposed non-conductors have lost their insulating powers, and that while the ocean destroys nearly everything submerged in it, sea-weed, being its natural offspring, is preserved by restoration to its native element.—*Mechanics' Magazine.*

From the Sunday Chronicle (Washington), Nov. 12.

A MERITED COMPLIMENT.

THE following card evinces a just appreciation of scientific talent, and we are gratified to learn that Prof. Henry is also a recipient of a similar honor. Prof. Page has contributed many inventions in the application of electricity and magnetism, and among them we count the automatic circuit-breaker and induction coil, used all the world over for administering electricity as a remedial agent, as one of great value. Prof. Page was the first to introduce in the Morse Telegraph a fine wire receiving magnet, and is also the inventor of the axial magnet, which has been used for many years as the mechanical motor in the House Printing telegraph. The disturbance of the molecular force by magnetism, the production of the thermo-electric spark, the vibration of Trevelyan's bars by galvanism, the curious phenomenon of presenting a piece of soft iron to the pole of a powerful magnet without any visible attraction, and many other developments of scientific interest recorded in *Silliman's Journal*, entitle Prof. Page to a high rank among American inventors and philosophers:

"OFFICE OF THE BANKERS' AND BROKERS' TEL. CO.,
No. 818 Penn's Ave., Washington, D. C., Nov. 10, 1865."

"Prof. Charles G. Page, Examiner U. S. Patent Office:

"SIR:—In behalf of the Bankers' and Brokers' Telegraph Company, permit me to tender you the use of their lines of telegraph as a tribute to the many inventions and discoveries you have made in electricity and magnetism, and valuable contributions to the telegraphic art.

"Very respectfully, your obedient servant,

"HENRY J. ROGERS, Sup't and Eng."

ALBANY, N. Y., Oct., 1865.

TO THE EDITOR OF THE TELEGRAPHER:

THERE is a growing evil among operators, on some lines at least, which is so senseless, and so prolific of disagreement, that I feel constrained to say a friendly word, with your permission, through our "organ."

I allude to non-obedience of orders given us, as operators, by managers and superintendents.

That we have judgment as to what is right, proper, or best I do not deny; but as employés, I hold that we are bound to obey orders, right or wrong, sensible or absurd, and *not* do this or that as we may think best.

If a superintendent directs that in transmitting messages the name of the place from which they originate, and the destination of the same shall be *written out* in full, instead of giving office signals only, is there any sense in stubborn non-compliance? Is it not easier to obey orders than fight circuit, and call those hard names who do obey?

If a superintendent should direct you to consume an hour sending sixty words instead of sixty messages, are you not bound to comply?

We are employed and paid to obey orders so many hours per day. Our time and services are not our own during that period, and he who best obeys even a senseless order is but doing his duty, and is not in any way responsible for the good or bad results of a compliance with it.

If we do not obey the orders of our superiors now, how can we expect obedience from others in the event of our promotion?

For one, I go so far as to assert that *out of business hours*, even, we have no right to rob ourselves of needless rest, or do anything else that will debase our faculties and unfit us for correct and faithful service the coming day. In no other business is there more need of clear heads and steady hands than in ours. Temperance, regularity, and obedience will insure accuracy, prevent disagreement, and make duty a pleasure instead of wrangling, hair-pulling drudgery.

BRAESUS.

The time for completing the North Atlantic line is three years and not two as has been stated.

DISTRICT DIRECTORS.

NEW-YORK.—W. Steinhoff, United States Tel. Office.	
BOSTON.—H. W. Wheeler, American	" "
PHILADELPHIA.—Jos. S. Greene, W. U.	" "
BALTIMORE.—J. B. Yeakle, American	" "
WASHINGTON.—T. H. Sherman, American	" "
ST. LOUIS.—W. Stoneback, W. U.	" "
CHICAGO.—A. H. Bliss, W. U.	" "
LOUISVILLE.—A. Ellison, W. U.	" "
NASHVILLE.—D. O. Dyer, U. S. Mil.	" "
Memphis, Tenn.	
Detroit.—T. W. Priest, W. U.	" "
MAINE.—C. L. Collamore, American	" "
Bangor.	
ALBANY.—A. L. Whipple, N. Y. C. R. R.	" "
UTICA.—J. B. Sabine, W. U.	" "
ROCHESTER.—J. H. Crane, W. U.	" "
CALIFORNIA.—M. Hodge,	
Carson City, Nev.	
NEW-JERSEY.—J. A. Wright, American	" "
Trenton.	
PITTSBURG.—Geo. A. Hamilton, U. S.	" "
HARRISBURG.—J. B. Lyndall, W. U.	" "
CINCINNATI.—B. R. Glues, W. U.	" "
St. JOSEPH.—W. H. Woodring, Box 1021.	
OMAHA.—Frank Lehmer,	Tel. Office.
INDIANAPOLIS.—G. W. Babbitt, Bellefontaine Railway	Telegraph Office.
TOLEDO.—A. S. Hawkins, U. S. Tel. Office.	

TREASURER'S REPORT

For the Quarter ending November 30th, 1865.

RECEIPTS.

To U. S. Bonds.....	\$1,600 00
" Balance in hand last report.....	759 06
" Amount received for dues and fees.....	1,208 00
" Interest on bonds and sale gold.....	26 37
	\$3,593 43

EXPENDITURES.

By Cash paid expenses of Convention.....	\$907 90
" for Sickness.....	324 00
" Funeral expenses.....	100 00
" Stationery and Printing.....	37 50
" Postage and Incidental.....	22 45
" Treasurer's Salary.....	50 00
" U. S. Bonds.....	1,600 00
By Cash in hand.....	651 58
	\$3,593 43

L. H. SMITH, Treasurer.

DISTRICT PROCEEDINGS.

CINCINNATI DISTRICT.—Regular meeting held Nov. 12th. The Director in the chair.

Minutes last meeting approved. Messrs. E. C. Armstrong, M. Adams, W. T. King, J. H. Dwight, A. H. Cope-land, N. T. Seymour, Cincinnati; A. Hayward, Vincennes, Ind.; S. T. Shaffer, Dayton; J. G. Pollock, Xenia, O.; A. P. Dane, Corwin, O.; and G. F. Clarke, Columbus, were elected members. Mr. McL. D. Lewis tendered his resignation as District Treasurer, which was accepted. Messrs. J. C. Mattoon and W. H. Cody were nominated to fill the vacancy. Mr. Mattoon elected. Mr. Kennedy proposed an amendment to by-laws, changing the regular meetings from the Sunday prior to 15th each month to the second Tuesday at 7.30 P. M. Committee on room granted further time. Adjourned.

BALTIMORE DISTRICT.—Special meeting called to order Nov. 20th, at 8 P. M.

In absence of Secretary, C. P. Dameron was appointed Secretary *pro tem.*

Committee on Ball not being ready to report at once, the following business was transacted:

Communication from A. H. Bauer, applying for reinstatement, read; and on motion, the vote for his expulsion was reconsidered, and by a vote reinstated under Art. 7, Sec. 2,

Letter from J. N. Worl read, and on motion it was

Resolved, That the District refuse to reinstate Mr. Worl, and recommend to the several Districts that he is unworthy of membership in the Union.

On motion it was resolved that the Secretary be instructed to request all delinquent members to liquidate their obligations to the District by or before the 5th of December.

Chairman of Ball Committee asked for more time before reporting, which was granted.

The meeting was an unusually interesting one—quite a spirited interchange of sentiments by different members. The Director congratulated the District upon its prosperity and the apparent interest felt by the members of the organization. Adjourned.

LOUISVILLE DISTRICT.—Regular meeting held Nov. 6th, Director in the chair. Minutes of last regular meeting approved. Treasurer reported amount dues received, six dollars; local fund, two dollars. Report of Committee on Local By-Laws. Report received, and committee discharged.

The Local Director reported favorably in regard to Mr. Moberly, of Ellettsville, Ind., who was elected a member. Messrs. John Lanergan, of Bowling Green, Ky., Curran, of Louisville, and Corey, of Lexington, Ky., also elected members. Mr. Biggert, Treasurer, again tendered his resignation. Laid over. J. H. Vestal moved that Mr. Biggert write Mr. Brooks, of Cincinnati, in regard to his illness, etc., and report at next meeting. Carried. Withdrawal of Mr. Holden laid over until next meeting. Mr. Flanagan moved that the District subscribe for *THE TELEGRAPHER* for another year, and that the Treasurer be authorized to pay two dollars out of the District funds. Carried.

The New-York District By-Laws were adopted as the By-Laws of this District, with the exception of clause 4, Art. I.

Moved and carried that the District order seventy-five copies of the N. Y. District By-Laws.

On motion, adjourned.

MAINE DISTRICT.—Regular meeting called to order Oct. 14. Daniel Shaw, of Portland, was unanimously elected a member.

There being no further business, the meeting adjourned.

Regular Meeting.—Meeting called to order Nov. 17.

On motion of Mr. Sawyer, of Portland, a unanimous vote of thanks was tendered to Wm. P. Merrill, Esq., our delegate to the Chicago Convention, for the able and happy manner in which he performed the duties of that occasion.

It was then decided, on motion of Mr. Sawyer, that "when it is impracticable to hold our regular meeting on the first Saturday evening in the month, it stand adjourned till the second Saturday.

On motion of Mr. Sawyer, it was voted "that seven members shall constitute a quorum for the transaction of business in this District."

Mr. Merrill, of Portland, then offered the following resolutions expressive of the thanks of this District to the members of the Chicago District for the courtesies extended to our delegates, etc., which were adopted unanimously:

Resolved, That the earnestness of purpose and high moral tone manifested by the recent National Convention of the Union at Chicago, in its acts and resolutions, meets with our most cordial approbation, and gives us the assurance that the organization is fixed upon a firm and enduring basis; therefore we hereby pledge our individual and combined efforts for the advancement of the best interests of an organization capable of conferring so much benefit and improvement upon each and every member thereof.

Resolved, That our heartiest thanks are hereby tendered to the members of the Chicago District for the very kind attentions and gentlemanly courtesies bestowed upon our delegate to the Convention.

Resolved, That we are much pleased to hear of the success of our organ—*THE TELEGRAPHER*—and that it is to be published semi-monthly, instead of monthly, in future, and that we will do all in our power to increase its circulation.

Adjourned.

DETROIT DISTRICT.—Regular meeting held Nov. 5th. Mr. A. H. Reese, formerly a member of the Chicago District, was enrolled on the books of this District.

At a special meeting held the same day Mr. B. T. Hutchinson was duly elected a member.



L. H. SMITH, Editor, Bankers' & Brokers' Telegraph Office,
14 Broad street, New-York.

FRIDAY, DECEMBER 15, 1865.

A NEW ALPHABET.

THE want of a new and improved alphabet for the use of those who manipulate the Morse key, and read from the sharp-clicking "sounders," has been long felt and often acknowledged. Many new alphabets and many alterations of the old one have been devised, but no one has had the courage to use a new alphabet until Col. Bulkley adopted one for the use of the Collins' overland line. We commend him for this daring act.

We have printed several different alphabets, or alterations rather of the old one, but do not, we believe, stand committed to any of them. We have printed whatever upon this subject has come to hand, desiring to give all a full and fair hearing; our great desire being to show the necessity and urge the adoption of some better characters than those which have thrown ridicule upon the profession and its members.

The frequent and constant blunders made by using the miserable characters called the Morse alphabet, ought to spur the officers of companies to insist upon the use of a better sign-language.

The adoption of a new alphabet might, we think, be easily effected. Operators will, of course, stand in their own light, and contend against common sense, and the rights of the public, as well as the interest of their employers, that it will be impossible for them to change. They seem too much wedded to their first love, to make a generous effort, join hands, and remove the stigma which now clings to our craft.

If some short line, like the Bankers' & Brokers', or the Insulated, would decree that the old Morse alphabet shall no longer be used, and insist upon the use of a better, we have full faith in the object being attained.

The American or Western Union Companies could effect the same object by introducing the new alphabet upon some one working circuit, and thus prove its feasibility, reliability, and practicability. If the first trial fails, try again, with a better dot and line argument.

The alphabet adopted by the Collins' Overland line has manifest advantages over any other yet offered, because it is constructed in regard to time and execution. Its author took a printer's case for his guide, and has arranged it so that all those letters the most used are the shortest, and yet there is no danger of mistaking one character for another. It has been charged that this alphabet is not arranged similar to a printer's case, but those thus objecting forget that a printer's case has capital letters, which in arranging these characters must not be overlooked.

Who will be the first to follow in the footsteps of the brave Bulkley? Will Col. Stager issue a "Bull" that no more blunders will be tolerated and that this much-needed reform must go into effect? Or will Capt. Rogers, or Mr. Van Choate, or, possibly, Gen. Lefferts, prove himself the Sheridan of the Valley of our Humiliation? Come, gentlemen, do a good deed before time steals from you the glad opportunity.

TELEGRAPHIC MISCELLANEA.

DISTRICT DIRECTORS will, we trust, have patience with us for not filling sooner their orders for certificates of membership. We got out of them as we took the Treasuryship, and before we were aware of it, and have been urging the lithographers to print us more, for a month past, but it is, just now, next to impossible to get anything done in New-York with dispatch. This explanation is also applicable to the new Constitutions. We will fill your orders, gentlemen, just as soon as it lies in our power.

SAW-BUCK wishes us to state that the letter O in his alphabet, printed in our issue of the 15th ultimo, should be and the character & should have one dot more at its right hand end.

MR. J. F. STEVENS, chief operator of the Western Union Company's Cincinnati office, is experimenting with a set of instruments brought from Boston by Messrs. Kennard & Mendel, of the Fire Alarm Telegraph, who claim that a circuit can be worked both ways at the same time.

WANTS A SITUATION.—MR. L. J. BLADES, a "sound" operator, late of the U. S. Military Telegraph, desires a situation. Can furnish good recommendations. Qualifications not stated. Address Seaford, Del.

IMPROVED ELECTRO-MAGNET.—SAMUEL F. DAY, of Ballston Spa, New-York, exhibited at the American Institute Fair an electro-magnet, which he claims to be an improvement over any at present in use. Mr. Day has made hundreds of experiments with various forms of electro-magnets, and he says these have led to the discovery that the nature and action of the residual magnetism remaining, after breaking the circuit, is modified by the proportions of the magnet; in long and slender spools the scope of its power extends much further from the pole than in short, thick spools. As the armature must be adjusted beyond the reach of the residual magnetism, any arrangement by which the power of this is circumscribed, is of great service in operating a telegraph. Mr. Day, therefore, makes his spools very short and of large diameter, the exact proportions having been determined by his numerous experiments.

VELOCITY OF ELECTRICITY.—Of the velocity of the spark discharge some notion may be formed from the brief duration of its light, which cannot illuminate any moving object in two successive positions, however rapid its motion. If a wheel be thrown into rapid rotation on its axis, none of its spokes will be visible in daylight, but if the revolving wheel be illuminated in a darkened room by the discharge of a Leyden jar, every part of it will be rendered as distinctly visible as though it were at rest. In a similar manner, the trees, even when agitated by the wind in a violent storm, if illuminated at night by a flash of lightning, appear to be absolutely motionless.

By a very ingenious application of this principle, Wheatstone has shown that the duration of the spark is less than the one-millionth part of a second. The apparatus is the same in principle as the revolving wheel.

By a modification of the apparatus, Wheatstone was also enabled to measure the velocity with which the discharge of a Leyden jar was transmitted through an insulated copper wire. He estimated the rate of its passage at 288,000 miles in a second.

WE acknowledge the receipt of, and return thanks for a complimentary ticket to the "First Annual Ball of the Washington District," which was held in Marini's Assembly rooms on Thanksgiving night.

WE are greatly pained to learn that our much loved Vice-President, W. H. Young, has just met with a sad loss. At this writing two of his children lie dead, and a third is very low with diphtheria. We are sure Mr. Young has the full sympathy of every member of the Union as well as the fraternity at large. May He who smiteth His loved ones "temper the wind to this shorn lamb."

NO MONOPOLY IN TELEGRAPHING.—An important telegraph case has just been decided in the United States Circuit Court for the Southern District of Ohio. The Western Union Telegraph Company filed a bill in equity for an injunction against the United States Telegraph Company, to prevent the latter from proceeding with the construction of a telegraph line from Cincinnati to Dayton, along the Cincinnati, Hamilton, and Dayton Railroad. The railroad corporation had granted, so far as they could, the exclusive right of way on their road to the Western Union Company, and the present proceedings were an attempt by the latter to maintain their monopoly. The line of the complainants, extending on one side of the railroad, the respondents, by legal proceedings before the Probate Court, secured a right of way on the other side. By an act of the Legislature the power of the Court to grant such a location was restricted to a strip not exceeding five feet in breadth, and this stipulation seems to have been inserted by the procurement of the Western Union Company, which afterward sought to occupy the whole of the strip under their grant from the railroad, by putting down posts diagonally so as to cover the track with their wires crossing from side to side. They then made application for an injunction to prevent the United States Company from proceeding. The Court referred it back on technical and general grounds, holding that the railroad corporation had no power to grant an exclusive right of way: first, because it is a contract tending to abridge the exercise of the franchise of the railroad corporation; and, second, because it is grossly contrary to public policy, and therefore void. What is the character of the clause giving exclusive right of way? The Telegraph Company did not bind itself even to complete a line on the west side of the railroad track: *non constat*, that it would ever do so. It is clear that it does not need such a line at present, and according to the proof in the case, it could probably never need it. The whole scope of this part of the contract shows that the objects were exclusion of competing lines and the establishment of a monopoly. Under the circumstances, says the Court, we think such a provision contrary to public policy, and therefore not to be enforced.

The application for an injunction being denied, the complainants appealed to the Supreme Court at Washington.

CHANGES, ETC.—Miss Minnie E. Nelson has resigned her position as telegraph operator at Palmer, Mass., and is succeeded by Charles Plumb, late of Stockbridge, Mass.

Mr. L. S. Wild has resigned his situation in the Western Union Company's Chicago Office, and moved to Missouri.

■ Mr. J. F. Reardon, formerly of the Western Union Company's West Point, N. Y., Office, has gone to Texas to engage in his profession. Theodore McAlister, of Stuyvesant, N. Y., succeeds him.

Mr. J. M. Fisher, formerly manager Western Union Company's Harrisburg, Pa., Office, is now chief night operator same Company's Pittsburg Office. Mr. W. D. Sargent succeeds Mr. Fisher at Harrisburg.

Mr. J. A. Westbrook, formerly in the American Company's Harrisburg Office, has taken a situation in the Bankers' and Brokers' Company's Baltimore Office.

Mr. D. C. Bleckney, formerly of the Pennsylvania Railroad Company's Harrisburg Office, has gone with the United States Company at Pittsburg.

Mr. J. C. Fox, formerly of the Pennsylvania Railroad Company's Harrisburg Office, has taken the S. C. & C. R. R. Company's Steubenville, O., Office.

It is understood that the Western Union Telegraph Company has contracted with Mr. Henley, of North Woolwich, for the manufacture of 500 knots of submarine cable for Behring's Straits, and 5000 miles of galvanized telegraph wire for land lines.

The uniform charge throughout Belgium for a telegram of twenty words is only one franc, and even that low charge is to be reduced at the close of the year.

THE TELEGRAPHIC TRIAL.—In response to the denial by F. O. J. Smith of the statement of *The (Portland) Argus* that Professor Morse had recovered a heavy judgment against Smith, the Professor says: "Technically there has been no judgment, but a verdict has been given against Smith in my favor for \$10,762 97."

The full control of the Southern telegraphic lines was restored, on the 1st inst., to the companies which own them, and the censorship of the press was removed.

In the United States Senate on the 6th inst., Mr. Morgan, of N. Y., introduced a bill to incorporate an International Telegraph Company for a telegraph line between New-York and the West Indies, which was referred to the Committee on Commerce.

The only telegraph line in Peru is nine miles long.

The American Company have opened an office at Franklin, Mass.

The Illinois and Mississippi, and Western Union Companies have established an office at the Board of Trade room in Chicago, where messages are transmitted to all parts of the United States. The United States Company are fitting up a beautiful office at the same place.

The California line was on Nov. 20th connected from Nevada, Iowa, to Dalmatia, Iowa, thereby shortening the circuit some miles, and bringing twenty-five miles more of the line along the railroad.

The Illinois and Mississippi Company has opened its new line from Cedar Rapids to Dubuque, and is about to put up its fourth wire between Chicago and St. Louis, to accommodate its fast increasing business.

PATENT CLAIMS.—51,261.—MAGNETIC TELEGRAPH.—Charles Kirchoff, Newark, N. J., assignee to himself and Leonard I. Staletsky:

I claim, 1st. The indicating and recording instrument actuated by electricity, arranged to automatically shift the actuating mechanism, and thereby move the dial or index in one or the other direction, in accordance with the transmitter, or as may be desired by the attendant, substantially as described.

2d. Securing a harmonious action between the transmitter and a series of receiving instruments, by so arranging or constructing the latter that their dials or indexes shall all cease to move or operate at a certain fixed place or character common to them all.

3d. Transferring the motion of the receiving instrument, at pleasure, to an instrument to be operated, independent of the indicator, by the same helix or helices.

4th. The combination of the recording cylinder, or its equivalent, with the indicating instrument, arranged and operating substantially as set forth.

5th. Transmitting the communications, automatically, by a mechanism defining the number of electric impulses, their direction and intervals, by a simple manipulation of the attendant, substantially as described.

6th. The reversing gear when arranged to be operated by electricity, for the purpose of automatically changing the motion of telegraphic mechanism.

NOTA BENE.

I will pay five dollars for copies of the papers—including the Supplement—composing the first volume of THE TELEGRAPHER, if in a fit condition for binding.

Address H. J. FISCHER, P. O., Box 79, Alton, Ill.

MARRIED.

In Palmer, Mass., Mr. Frank H. Wood, of Monson, to Minnie E. Nelson, of Palmer.

In Chicago, on Nov. 12, at the residence of the bride's father, by the Rev. Dr. Hatfield, Mr. W. T. Lindley to Miss Ida E. Maybury, all of Chicago.

In Granville, Ohio, Nov. 20th, at the residence of the bride's father, by the Rev. F. O. Morse, Mr. C. B. Smith, of Chicago, to Miss Carrie C. Parsons.

QUOTATIONS OF TELEGRAPH STOCK.

Western Union,.....	\$100 shares....	60	| Russian Extension,..	\$100 shares....	30
American,.....	"	128	United States,.....	"	57

NOTICE TO CORRESPONDENTS.

All communications to, or articles for insertion in, THE TELEGRAPHER, must be addressed to the Editor, care of B. & B. Telegraph Office, No 14 Broad Street, New-York.

No notice will be taken of anonymous communications: the name and address of the writer must always accompany each article or communication.

Correspondents sending articles for insertion must write briefly, and on but one page of each half sheet of paper. We can not return rejected articles.

DISTRICT BY-LAWS.

The N. Y. DISTRICT have 1000 copies of DISTRICT BY-LAWS printed in pamphlet form, with blank spaces for filling in time, dates, and amounts. Price, \$3.50 per 100. These By-Laws were printed upon the assurance of several Districts of their desire to purchase.

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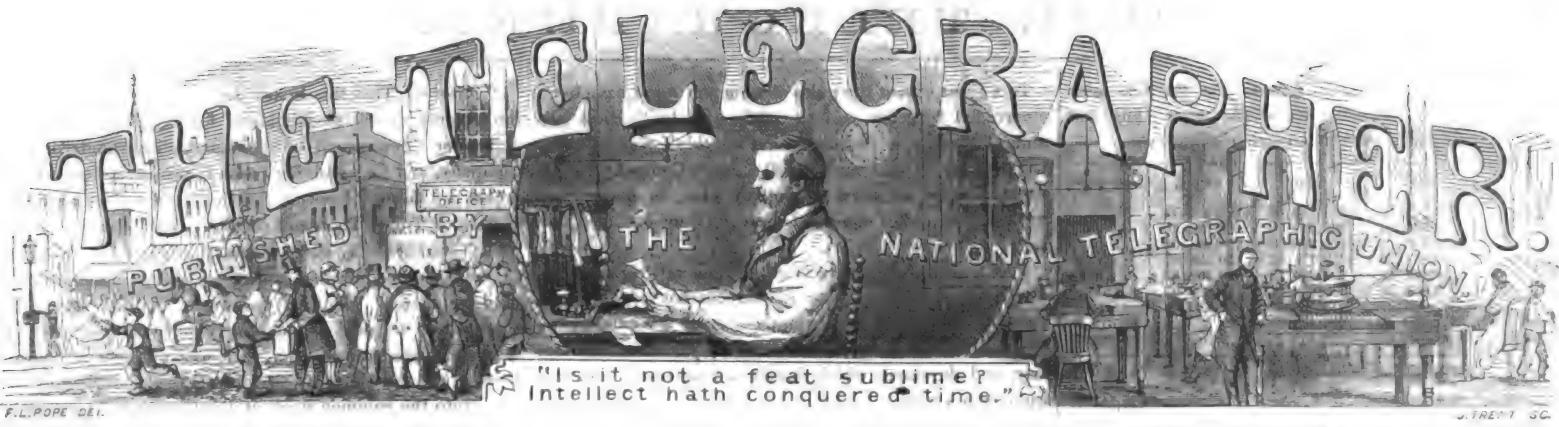
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The Machinery from this establishment is made under the supervision of Mr. E. M. PIERSON, formerly Superintendent of the WESTERN UNION TELEGRAPH COMPANY'S MANUFACTORY.

ALL ORDERS PROMPTLY EXECUTED.

L. G. TILLOTSON & CO.,

26 Dey Street, New-York.



Vol. II.

New-York, Tuesday, January 2, 1866.

No. 19.

GENERAL OFFICERS

OF THE

NATIONAL TELEGRAPHIC UNION.

C. W. HAMMOND, PRESIDENT, P. O. Box 3120, St. Louis, Mo.
W. H. YOUNG, VICE-PRESIDENT, U. S. Tel. Office, Washington, D. C.
L. H. SMITH, TREASURER, B. & B. Tel. Off., 14 Broad St., N. Y.
J. C. UPHAM, RECORDING SECRETARY, P. O. Box 4064, Boston, Mass.
S. P. PEABODY, CORRESPONDING SEC'Y, Box 1021, St. Joseph, Mo.

STATEMENT OF THE DIRECTORS OF THE

Western Union Telegraph Company.

To the Stockholders of the Western Union Telegraph Company.

FROM the frequent inquiries made on the part of the Stockholders in respect to the condition and prospects of the Company, it is believed to be proper that the Board of Directors, at this time, lay before them a statement of its affairs. They have a right to know the condition of their property, and such important and leading facts relating to it as may or do affect or determine its value.

The Board supposes the inquiries are suggested by the occasional reports of sales of a few shares of the stock in the lists of the New-York Stock Exchange; and they are neither strange nor unreasonable.

While the Board does not regard it any part of its legitimate duty to regulate, or attempt to regulate, the terms upon which the stock shall be sold or bought, it does not feel at liberty to withhold from those interested, and who may desire to sell, such information in respect to its value as may be necessary to the exercise of an enlightened judgment.

The Directors feel a deeper interest in the permanent prosperity and enduring success of the Company, and in maintaining its sound and well-earned credit, than in legislating to effect the price of its shares upon the exchange. It is with them, and it has been for many years, a cherished institution, and in which they are largely personally interested; collectively owning over six millions—nearly one-third of its entire capital—and in addition over three millions of the capital stock of the Extension Line. So far, therefore, as fiduciary obligations and personal interests can affect the management, the Directors claim to be entitled to the confidence of the stockholders in such suggestions as they shall submit for consideration.

This Company was organized in the year 1851, with a capital of \$360,000, to construct a line of electric telegraph from Buffalo, in the State of New-York, to St. Louis, in the State of Missouri, touching at Cleveland, Columbus, and Cincinnati, in the State of Ohio, distance

about 900 miles. In fact, however, the line terminated at Louisville, Ky., distance about 600 miles.

It made no dividends for the first seven years of its existence, but all its earnings were devoted to the acquisition and construction of other lines.

During this period, and later, many other and independent companies were organized, which were subsequently consolidated with and merged into this company, upon terms which proved to be highly advantageous to the interests of this company. As other lines were acquired, or new ones constructed, stock was issued to represent their value.

In 1864 the stock of the company had in this way become augmented to eleven millions of dollars. The addition of lines had been in proportion to the increase of the stock from its original amount, so that the number of miles of wire in 1864, represented by a capital of \$11,000,000, was in the same ratio to that, as the number of miles in 1851 was to the capital of \$360,000.

In May, 1864, the market value of the stock being about 200, the stock was doubled, making it nominally \$22,000,000, but the actual stock issued is only \$21,355,100. The doubling in 1864 was arbitrary, and for the purpose of cheapening the market price of the stock. It was believed the earnings would justify a fair dividend to the stockholders on the doubled stock, and that the advantages to the interests of the company, by a more general distribution of the stock, would warrant such increase.

It is proper, however, to state that since May, 1864, the process of acquisition and construction has been going on—viz.:

Number of miles of wire acquired by the consolidation of other lines, 3,800
Number of miles of wire purchased and put into use to increase facilities, 8,593

LIABILITIES.	
Capital stock issued,	\$21,355,100 00
Bonds outstanding,	1,908,500 00
Temporary loan for construction,	392,451 60
Due to Railroad companies,	8,939 36
	<hr/>
	\$23,664,990 96

ASSETS.

Productive stock in other Telegraph Companies,	\$2,442,260 00
Real Estate,	20,000 00
Due from Railroad Companies,	18,068 08
Bills receivable,	741 66
Bond and mortgage,	1,022 73
Due from Telegraph Companies,	18,946 64
Due from officers,	58,885 49
Due from U. S. Government,	10,082 19
Cash,	59,929 80
Telegraph Lines, Equipment, etc.,	\$21,040,074 97
	\$23,664,990 96
1. The bonds outstanding, to the amount of \$1,652,-	

130 62, were issued to meet a necessity requiring the company to purchase a majority of the stock of the California State Telegraph Company for the protection of its interests on the Pacific coast. The proceeds of the residue of the bonds have gone into construction. They mature as follows:

May 1, 1866,	\$580,000 00
May 1, 1867,	1,378,500 00
	<hr/>
	\$1,908,500 00

2. The stocks in other Telegraph Companies owned by this Company are dividend-paying stocks of companies having intimate business connections with this Company, and were purchased for the protection of such interests, and are believed to be important and very valuable investments.

3. Number of miles of wire in use, as per report of Superintendent, January 1, 1865, about 40,000 Since added, 4,000

Total,	44,000
------------------	--------

most of which is galvanized, and all in good condition. Its lines and connections reach all the important cities and business points in the United States and British Provinces, and it is rapidly pushing its wires to reach the business of the Eastern Continent.

Present number of offices, 1,014

The value of the lines of this Company is materially enhanced by important and mutually beneficial contracts with the leading Railroad and Telegraph Companies of the country, and by other valuable franchises. The business secured by contracts with the established and principal Telegraph Companies of this continent, and the grants and franchises obtained from the Russian and British Governments, in view of our connection with the vast network of European lines, constitute an element in the value of the property of this Company which, we think, should not be lost sight of by the stockholders.

October 1, 1865.

Gross receipts and income of the property and franchises of the Company from May 1, 1864, to October 1, 1865,	\$3,599,557 23
Surplus balance, May 1, 1864,	377,222 03
Proceeds from bonds applied to construction,	347,869 38
Proceeds temporary loan for construction,	392,451 60
	<hr/>
	\$4,717,100 24

CONTRA.

Working expenses and supplies from May 1, 1865, to October 1, 1865,	1,513,429 81
Taxes,	138,179 50
Dividends,	2,011,405 50
Interest, May Coupons,	67,847 50
Construction,	780,099 39
Cash and balances due,	206,138 54
	<hr/>
	\$4,717,100 24

Statement of Earnings and Income for the first nine months, ending September 30, of the years 1864 and 1865—the financial year commencing January 1:

	1864.	1865.	Increase.	Decrease.
January,	\$92,094 29	\$214,518 66	\$122,424 37	
February,	99,944 34	206,295 52	106,351 18	
March,	130,723 74	223,735 58	103,011 84	
April,	140,651 76	255,775 43	115,123 67	
May,	129,427 62	226,080 85	96,653 23	
June,	179,265 33	220,472 26	41,206 93	
July,	160,420 81	218,139 92	57,719 11	
August,	212,750 42	204,478 21	.....	\$8,812 21
September,	228,840 64	222,776 37	.....	6,064 27
Total,	\$1,374,158 95	2,002,273 80	642,490 33	14,376 48
Total increase,			628,113 85	

Working Expenses and ordinary rep'res 522,227 99 850,103 62
Net Profits 844,930 96 1,153,189 18

The apparent decrease in August and September, 1865, arises chiefly from extra receipts in the corresponding months of 1864. This is shown by the fact that the receipts of the earnings of the lines—that is for telegraph receipts—were \$12,067 48 greater in August, 1865, than in August, 1864, and \$11,093 85 greater in September, 1865, than for September, 1864, and this notwithstanding the close of the war, the absence of political excitement, and losses on the Pacific line, which are more particularly referred to hereafter. It is estimated that on the first of January, 1866, the available funds in the treasury, after paying the temporary loan for construction, and all the liabilities of the Company except the outstanding bonds, will be \$150,000, or thereabouts.

Comparative Statement of Telegraph Receipts for the years 1864 and 1865, from Jan. 1 to Sept. 30, not including amount paid other lines:

	1864.	1865.
January,	82,025 69	195,912 64
February,	89,231 43	201,173 19
March,	103,279 22	221,496 05
April,	119,130 24	221,775 55
May,	111,593 81	214,079 74
June,	162,205 67	213,921 89
July,	150,699 16	198,848 64
August,	183,875 97	195,948 45
September,	209,196 10	220,899 95
	1,212,245 29	1,888,471 10

Statement of Net Profits from January 1, 1864, to January 1, 1866.

Balance on hand Jan. 1, 1864, exclusive of January Dividend.	.....	\$45,915 76
Net profits of the year 1864,	.....	1,329,705 72
Net profits of first nine months of 1865, from Jan. 1 to Oct. 1,	.....	1,063,873 82
Estimated net profits from Oct. 1 to Dec. 31, 1865,	.....	360,000 00
		\$2,799,496 30

DIVIDENDS PAID.

April, 1864,	.....	\$251,330 00
July, "	.....	315,253 50
Oct., "	.....	421,268 00
Jan'y, 1865,	.....	428,204 00
April, "	.....	424,580 00
Aug., "	.....	427,100 00
		2,262,735 50

Balance, \$536,759 80

The foregoing statements exhibit the situation of the affairs of the Company, Oct. 1, 1865.

It will be seen that its condition is perfectly sound. The necessity of extraordinary outlays for construction has required the Board to use and anticipate to some extent the earnings of the lines for the purpose, but the importance of the work to be done could not be overlooked, and the additional facilities acquired the Board have no doubt will fully justify the expenditures.

In the account for construction, nothing is embraced except for additional new lines and additional new wires. The renewal of wires and poles is always charged to repairs. We have not the data at hand to exhibit the extent of renewals of wire and poles, but the expenditure for these alone has been large.

To a great extent the poles of common wood have been superceded by cedar, and the plain wire by the best galvanized wire to be procured; and we think we are justified in claiming that no other Telegraph Company in the world, having an equal extent of lines, is better constructed and better equipped than the lines of this Company.

The Board fully appreciate the general right of the stockholders to participate in the current profits upon their investments, and the impropriety of a capitalization of such profits without their consent; yet circumstances may, and do, occur which justify a temporary departure from such a rule.

A high duty is devolved upon the Board in the management of the trust confided to it, to see that the principal is properly guarded and protected, so as to prove a permanent and safe security.

At the time the Bonds of the Company were issued for the purchase of the stock of the California State Telegraph Company, the market value of the stock of this Company was firm at par and upward; and it was reasonably believed that, before the maturity of the Bonds, the holders would avail themselves of the convertible clause therein, and that the amount would thus become a part of the capital, without provision of funds to meet the payment of the principal in cash.

Hence, the limited period fixed for their maturity. The depression in the market price of the stock, by removing the inducement to convert the Bonds, has made it necessary to provide in some other way for their payment—viz. :

May 1, 1866,	\$530,000
May 1, 1867,	1,378,500

Before suggesting the policy to be adopted in respect to these requirements, it is proper the Board should call your attention to another subject largely affecting the interests of the Company. It is generally known that during the present season our line from Omaha to Salt Lake City has been seriously interrupted between Julesburg and Green River by Indian raids and depredations, materially diminishing the receipts of the current year from that line. We have now but a single wire from Omaha to Salt Lake pursuing the northern route from Julesburg by the way of South Pass and Green River. We have a line from Julesburg to Denver, and what is absolutely required to afford the needed facilities for doing and retaining our business with the Pacific Coast, is a continuation of the line from Denver to Salt Lake, along the new stage route now or soon to be opened between these points. That would give us two wires from Salt Lake to Julesburg, and one of them so far south of the region of Indian depredations as to be substantially free from disaster from that cause. A second wire from Julesburg to Omaha, upon the same poles now in use, should be immediately added, thus giving us substantial protection from Indian troubles and the needed facilities for the business of the line.

It is estimated that the expenditure now absolutely essential in respect to the Pacific line, and other important additions to our lines, will require about \$1,000,000. These and other facilities are the more required in view of the speedy construction and completion of the Overland Extension Line, which is to connect the American and European systems of Telegraphs, and which must inevitably largely increase the business of our lines.

No one who has considered the effect of a union of the Eastern and Western Continents by the electric wire, fails to appreciate the great importance of preparation of facilities to meet the wants of the business.

Now the Bonds and this addition to the Pacific Line must be provided for in one of three ways:

1. By the application of the earnings of the Lines; or,
2. By the issue of other Bonds; or,
3. By the creation of a guaranteed stock.

These various propositions have been considered, and the Board adopted the following resolution as its conclusion, viz. :

"Resolved, That this Board deem it expedient, and for the interest of the stockholders, for the purpose of providing for the payment of the outstanding Bonds of the Company, and for obtaining funds for construction, to increase the Capital Stock of this Company by the addition thereto of Thirty Thousand (30,000) Shares, of one hundred (100) dollars each, amounting to three millions (\$3,000,000) of additional stock, and guaranteeing to the holders thereof eight (8) per cent. annual dividends thereon, to be paid semi-annually on the first days of May and November in each year, and giving the holders thereof the privilege at their option of converting the same into the common stock of the Company, at any time within ten years from the first day of November, 1865, the holders of such guaranteed stock to have the right of voting thereupon; and that it is ordered that such increase be made, and that the holders of the said Bonds maturing on the first day of May, 1866, have the privilege at any time within forty days from November 1, 1865, and the holders of said Bonds maturing on the first day of May, 1867, have the privilege, at any time within five months from November 1, 1865, of exchanging such Bonds for such guaranteed stock at par, as of the first day of November, 1865."

It was also determined that the balance of the three millions of guaranteed stock, not required to exchange for such outstanding Bonds, be in the first instance offered ratably to the Stockholders at par, and interest from Nov. 1, 1865, giving them the privilege of subscribing for the same at any time within twenty days after notice of such right.

J. H. WADE, President.

Rochester, N. Y., October 1, 1865.

LAYING A TELEGRAPH CABLE.

ON Saturday, Nov. 18th, a third telegraph cable was laid across the Golden Gate, from Fort Point to Horse Shoe Bay, by the California State Telegraph Company. Two other cables had been laid by this company, the first of which was rendered useless by a vessel breaking it in letting go an anchor on the wire; and the second would not work after it was laid down, owing to defect in the manufacture. These cables are costly things—the present one causing an outlay of about eight thousand dollars, laid down—the length of the whole cable being inside of two miles.

Owing to the late stormy weather, the work of laying this cable had been deferred from day to day, until patience had almost been exhausted; but on Saturday the sea had gone down, so that the work could go on, and at nine o'clock the steam-tug Merrimac steamed slowly down the harbor, towing the barge on which the lightning-conductor was coiled. The weather was exceedingly charming, and the floss-like green robes of the hills gave evidence of the effective life-giving rains. Inside the Heads, the Bay was calm and unruffled by a breath of air, whilst outside the ocean was still in tumult from the late gales—the sea at times rolling in with grand effect, and dashing against the rocks at Fort Point.

At Fort Point wharf the tug was made fast, and the shore end of the cable landed, and connected with the wire leading to the San Francisco office. When everything was ready, and the signal from the Whitehall boat, which had been sent out, told that the tide served, the word was given to "let go," and off started the tug, Messrs. Ladd and Vanderberg of the Telegraph Company superintending the "paying out" of the cable. Just as the tug cast off, the gallant steamer Orizaba, bound for Oregon, came majestically down the harbor, her flags gracefully floating from her mast-heads. As she neared the cable party, her passengers saluted, and as the steamer passed astern of the tug and over the wire, the captain dipped the American ensign thrice, and then sped away to the ocean. The report of her departure was most probably sent to Portland through this same wire shortly after she passed over it.

About two years since the Telegraph Company built a superior line from the "North Heads" to Sacramento, to increase their facilities to do business, and connected it with the city office by means of a cable, but after it had worked a while was destroyed, as stated in the first part of this item. A second one was then put down, but, from unseen defects, would not work, and the line laid idle for the best part of a year. The third cable laid on Saturday gives promise of doing good service, and, we trust, may not be parted by the carelessness of the officers of vessels dropping their anchors on the line of the wire.—*Alt. California.*

THE TELEGRAPH TO INDIA.

The direct line of telegraphic communication between England and her vast possessions in the far East has at length been opened to the public, and messages are now hourly passing between London and the most distant portion of her Indian empire, even to the very borders of China itself. That this great undertaking has at length been brought to a successful issue must be no less a source of surprise than gratification to the public; for so much uncertainty has hitherto attended great submarine telegraphic operations, that little has been said or written about the progress of the work. It was not until a message from Calcutta, dated Thursday, March 2, 1863, was published in our number of the following day, that the general mass of the public were even informed such an undertaking was seriously contemplated. Yet the work has been for a long time slowly but surely advancing toward completion. For several years scientific investigation and political negotiation have been paving the way for the successful accomplishment of this enterprise, which is destined in its results completely to alter the relations between England and her eastern possessions. The idea of connecting the mother country with her Indian dependencies is as old as the science of telegraphy. The Red Sea cable, from imperfect manufacture and careless submersion, became utterly useless in a few months; and by that failure the confidence of the Government in the feasibility of an Anglo-Indian telegraph was much shaken. It was not until after the return of the Red Sea repairing expedition of 1862, under Sir Charles Bright, that the Government would consent to favor any scheme for securing telegraphic communication with India. At the latter end of 1862, the late Colonel P. Stewart, R. E., returned from a special mission to Persia with reference to the establishment of a line of telegraphs near the Meckran Coast, the Persian Gulf, and the Turkish dominions. His report was considered so satisfactory by the Government that it was at once decided to commence the line; and Colonel Stewart was appointed to superintend the whole scheme on behalf of the Government. Sir Charles Bright and Mr. L. Clark were appointed as engineers and electricians, under whose sole superintendence the line was to be manufactured, conveyed to its destination, and finally laid. The construction of the cable differed very materially from that of any hitherto manufactured. The conducting wire, instead of being composed of a strand of seven small wires, was constructed of four segments, drawn together in a hollow tube, so as, to all appearance, to form a solid wire; this wire possesses all the advantages of a solid wire, with the saving of 28 per cent. in conductivity for wires of equal sizes. This conductor was coated by the Gutta-Percha Company with four layers of gutta-percha, so carefully laid on that a degree of insulation hitherto quite unprecedented was obtained. The finished core, after having been tested and approved by the electricians, was sent to Mr. Henley's works at North Woolwich, where it was covered with a wet hemp, serving alike to form a bed for the sheath of iron wires afterward to be laid on, and to render every slight fault which might occur in the gutta-percha at once manifest to the engineers. The served core was then coated with a sheath of galvanized iron wires, twelve in number and No. 7 gauge, which rendered the insulated wire capable of resisting a direct tensile strain of about eight tons. As a further protection of the iron wires against decay, in addition to their galvanization, after submersion, the whole cable was twice served with hemp, and twice coated with a patent bituminous compound invented by Messrs. Bright & Clark, which formed a most effective protection against corrosion, the real destroyer of submarine cables.

The manufacture of the cable was commenced in February, 1863, and the total length of nearly 1500 statute miles was completed by the middle of October in the same year. It may be easily imagined that the convey-

ance of the line, weighing as it did nearly 6000 tons, from England to its destination, a distance of some 15,000 miles, was not among the least of the difficulties to be overcome during the enterprise. Six ships were selected for the purpose, each being fitted with three water-tight iron tanks, in which the cable, from the time of its shipment to its arrival in India, could be kept constantly submerged. These ships left England as they were loaded. The first started in the middle of August, and the remainder at intervals of a few weeks, until the 4th of December, when the last vessel sailed from Plymouth. After encountering all the vicissitudes of wind and weather usually met with in making such a journey, with such trying cargoes, all the ships arrived safely at Bombay, their voyages varying in length from 90 to 140 days.

The first of the ships—the Marian Moore—with 185 miles of cable on board, reached her destination on the 22d of December, 1863, and was followed on the 11th of January, 1864, by the Kirkham. These two vessels having sufficient cable to complete the first section of the line, viz., from Gwadur, on the Meckran coast, to Malcolm Inlet, near Cape Mussondom, no time was lost in getting the machinery erected ready for paying out the cable. On the 22d of January the first portion of the expedition left Bombay. It consisted of her Majesty's steamship Coromandel, on the way up; her Majesty's ship Zenobia, Lieut. Carpendale, towing the Kirkham, and her Majesty's ship Semiramis, towing the Marian Moore, and having on board all the electrical and engineering staff. Both vessels being rather deeply laden, after a fine but tedious run of seven days, the whole squadron anchored in Gwadur West Bay, when it was joined by her Majesty's gunboat Clyde, whose light draft of water was intended to render her available for landing the shore ends.

Of Gwadur, the first station on this submarine line, little can or need be said. It is a small Beloochee town, erected on a sandy isthmus between two very lofty and precipitous ranges of sandstone hills. It is now in the possession of the Imaum of Muscat, though his title to it is disputed by nearly all the neighboring chiefs. Indeed, for the last century, it has been the Schleswig of the Persian Gulf. The inhabitants are neither Arab, Persian, nor Beloochee, but seem to be a mixed race, possessing few of the distinctive qualities of either but their dirt, their color, and their general dislike of work. The water in the bay was very shallow, so that the vessels could not approach nearer than three miles from the shore. The landing of the end, therefore, was not an easy matter. By coiling, however, a portion of the cable on the deck of the gunboat, and the rest in the paddle-box boats of the Zenobia, the shore end was landed on the 4th of February.

At 9 p. m. the same evening, the Zenobia, having taken the Kirkham in tow, steamed out of the bay, and the latter ship commenced paying out the cable toward Ras Jask, skirting close along the mountainous cliffs which bound the Meckran coast. Nothing could exceed the perfect regularity with which the arrangements acted. The cable uncoiled itself with absolute freedom from the hold, and the bituminous covering, instead of proving an embarrassment on account of its sticking together, was found to be a positive advantage in keeping the cable from springing out of its place, and in preventing the wires, which occasionally get broken in passing over the drum, from escaping and fouling the machinery—a species of accident anything but uncommon in paying out cables unprovided with any such protection. There are always considerable difficulties attendant upon paying out cable from a ship towed by a steamer. In the first place it is impossible to stop the ship's way, alter her course, or, indeed, to do anything in case of an emergency, without going through the laborious and at best very uncertain method of signaling either by lamps or flags. This difficulty was overcome, however, by an ingenious adaptation of the Morse code alphabet, used in all the telegraph companies to semaphore and lamp-signals. It was done

with a bull's-eye lamp, the shutter of which is carried on the end of a small lever. The duration of the time the light is exposed could, of course, be varied at pleasure, and could be made to represent every signal in the Morse code. With such skill and rapidity were these instruments used on board both the Kirkham and Zenobia that the most complicated messages between the ships were sent at the rate of some 20 words a minute; whereas by means of the Marriott code it would be next to impossible to transmit a message of 20 words in less than half an hour. The system of testing adopted during the submersion by Mr. Laws, the chief electrician, and his assistant, Mr. Lambert, was so perfectly contrived that hardly a minute elapsed during which the line was not under electrical examination, so that the least fault or injury occurring during the process of submersion would be detected before it was too late to remedy the defect. Everything, indeed, went so smoothly that Sir Charles Bright and his assistant engineers had little to do but to see that the already perfect arrangements were adhered to. The expedition continued to skirt along the Meckran coast, the depth varying from about 20 to 100 fathoms, and the cable paying out at 4 $\frac{1}{2}$ to 5 $\frac{1}{2}$ knots. The changes from the fore to the after hold, and from the after to the main hold, were accomplished without any accident, and at 10 A. M. on the morning of the 6th, the Kirkham, having paid out the whole of her cable, the squadron anchored off Ras Mundony, about 180 miles westward of Gwadur. During the forenoon the Semiramis, with the Marian Moore in tow, arrived and anchored close to the Kirkham. Now followed one of the most troublesome portions of the entire undertaking, viz., the transfer of the whole of the men, stores and appliances connected with the cable, from one ship to the other, in the open sea. The weather was fortunately fine at the time, and by working day and night the task was completed.

On the morning of the 7th the ships of the expedition again got under weigh, the Zenobia having the cable-ship, the Marian Moore, in tow; the Caromandel, the flag-ship of the fleet, on board of which was Colonel Stewart, again leading the way; the Semiramis at the same time starting with the now empty Kirkham in tow for Bombay. During the 7th and morning of the 8th, the expedition steamed along beneath the bold overhanging cliffs of the Beloochistan shore. The operation of laying continued to progress most successfully, the electrical condition of the line rather improving than otherwise as it was submerged.

Early on the forenoon of the 8th the expedition anchored off Ras Jask for a few hours, in order to insure arriving off Mussondom by daylight of the 9th. At nine p. m. the ships again got under weigh, and steered directly south, across the narrow entrance to the Persian Gulf, for Cape Mussondom.

By daylight on the morning of the 9th, the lofty mountains of the Arabian coast could be seen towering high above the morning mist, apparently close to the ships, but in reality the highest (upward of 10,000 feet) being situated many miles away.

(To be continued.)

ELECTRIC LAMP.—It is sometimes necessary to enter an atmosphere of poisonous gas, to rescue persons who have fallen in it, or for some other purpose. This can be done by having in the mouth the ends of breathing tubes communicating with the free air. But if a light is required, an ordinary lamp would not answer the purpose, as it would be extinguished in the poisonous gas. Messrs. Dumas and Benoit have devised an electric lamp to be used in this case. It consists of a single galvanic battery, a Ruhmkorff coil, and a Geissler tube, all arranged in compact form. The Association say it has been tried successfully in the mines of Alais and Saint-Etienne, and they are therefore happy to decree the inventors a silver medal.

EFFECTS OF MAGNETISM.—When a bar of iron is magnetized, it is actually elongated. It has been suggested that the elongation of the bar is due to its particles setting their longest dimensions parallel with the lines of magnetic force.

THE TELEGRAPHER.

From the *Atlantic Telegraph*, edited by H. O'NEIL.
Published weekly on board the Great Eastern. 1865.

MONEY MARKET.

There has been a steady rise in all kinds of stock, especially in Great Ship shares and Atlantic Telegraph, owing to the mysterious winks of a French gentleman, who is said to be in daily communication with the Emperor Napoleon.

Quotations (literal and otherwise) from Shakespeare:

CAPT. MORIARTY. "Farewell the sextant and the telescope, And altitudes from sun, and moon, and stars. Poor Moriarty's occupation's gone."—*Othello*.

Phantom of cable vanishes.

S. CANNING. "So, being gone, I am a man again."—*Macbeth*.
C. VARLEY. "My little airy spirit, see, see, see, Sits in a foggy cloud, and waits for me."—*Macbeth*.

C. V. DE SAUTY. "Hence, wiry phantom! thro' thy core No longer flash the units of intelligence: Thy nerves lack continuity."—*Macbeth*.

PROF. THOMSON. "Who steals my purse steals trash; But he who filches from me my brass pot, Robs me of what enricheth not himself, And makes me poor indeed."—*Othello*.

S. CLIFFORD (to small piece of iron-wire in cable,) "Hence, heap of wrath! foul, indigested lump!

As crooked in thy manners as thy shape."—*Henry VI*.
C. W. FIELD. "Age cannot wither—custom cannot stale My infinite prospectusses."—*Anthony and Cleopatra*.

T. TEMPLE. "A haw-ser! a haw-ser! My kingdom for a haw-ser!"—*Richard III*.

IN REQUIEM, AUGUST 11, 1865.

HORACE, EPOD. XI. 8.

(Written on board the Great Eastern, by W. H. RUSSELL, M.D., LL.D.)

MOUREN not, my CANNING, for th' untimely end Which for an hour has ta'en away thy friend. Though lost to sight, to memory ever dear. E'er long he'll rise submissive from his bier; And then, responsive to electric rush, Shall force the genial current's warning touch; Still passive laboring with his ardent soul, Shall waft a sigh from Indus to the Pole; Shall make two continents their tribute yield Of cent per cent to PENDER and to FIELD; And, lying mute down in the darkling sea, In every message still shall speak of thee; Shall tell how, struggling with the wind and wave For nine long days, indomitably brave, Thou wagedst battle 'gainst his sullen might, Beaten again, returning to the fight, Till conquered by such fortitude and force, Upward he came, and owned his stern remorse.

Russian-American Telegraph.

SAN FRANCISCO, Thursday, Nov. 30, 1865.

THIRTY-FOUR miles of submarine telegraph cable are going on shipboard, to be laid across the Straits of Fuca. The steamer George S. Wright arrived to-day, twenty-eight days from Petropavlovski, bringing Col. Bulkley and several others of the Overland Telegraph Expedition.

From the reports furnished it appears that about fifty men have been scattered in detached parties along the north-western American and Asiatic coasts, who will spend the winter exploring, surveying, and locating the telegraph routes, using the steamer Reindeer as a means of transportation from place to place.

Bargains will be made with the natives to furnish telegraph poles wherever practicable.

Next summer it is hoped the surveys will be completed, so that several thousands of natives may be employed planting poles.

The Western Union Telegraph Company's bark Golden Gate, Captain C. M. Scammon, U. S. M., arrived this

evening from Petropavlovski, in twenty-seven days, after a stormy and severe passage.

Everything in relation to the Overland Russian Telegraph is in most satisfactory and promising condition. The inhabitants and Government officials rendered every service in their power to promote the enterprise, and fully appreciate its importance. The four exploring parties landed during the progress of the expedition were in the field and actually pushing their work.

The Golden Gate, which is the last of the company's fleet that has arrived, brings up the report of the season's work, which is highly satisfactory, and gives great promise to the successful construction of the great link of telegraph line joining the continents, and bringing the United States in telegraphic communication with Europe by overland route.

Curious Obstacles to the Establishment of the Telegraph in India.

The Atlantic Magazine for December has the following:

"The establishment of the electric telegraph in India presented some curious as well as difficult problems. In the first place, it was discovered that the air of India is in a state of constant electrical perturbation of the strongest kind, so that the instruments there mounted went into a high fever and refused to work. Along the north and south lines a current of electricity was constantly passing, which threw the needles out of gear, and baffled the signallers. Moreover, the tremendous thunder-storms ran up and down the wires, and melted the conductors; the monsoon winds tore the teak-posts out of the sodden ground; the elephants and buffaloes trampled the fallen lines into kinks and tangles; the Delta aborigines carried off the timber-supports for fuel, and the wire or iron rods upon them to make bracelets and supply the Hindoo smitheries; and the cotton and ice boats, dredging up and down the river, dragged the subaqueous wires to the surface.

"In addition to these graver difficulties were many of an amusing character. Wild pigs and tigers scratched their skins against the posts in the jungle, and porcupines and bandicoots burrowed them out of the ground. Kites, fishing eagles and hooded crows came in hundreds and perched upon the line to see what on earth it could mean, and sometimes after a thunder-storm, when the wires were wet, were found dead by dozens the victims of their curiosity. Monkeys climbed the posts and ran along the lines, chattering and dropping an interfering tail from one wire to another, which tended to confound conversations with Calcutta."

A PERFECT CABLE FOR THE ATLANTIC TELEGRAPH.—To the Editors of the *American Artisan*:—There is only one way to lay the cable of the Atlantic Telegraph with success, namely to make it hollow. A hollow cable of the same weight as the one already partly submerged, will weigh, per mile, much less in the water, its diameter being so much greater; and, in accordance with its specific weight, it will float in such a depth as not to interfere with the bottom of the ocean, or with the currents of the upper regions of the same; hence it will lie in "dead-water," and avoid scraping on sharp subaqueous rocks, and also have every inch of its length supported much more uniformly than it could be by buoys. In "paying out" there will not be half the strain upon the hollow cable that there is upon the solid one, because its weight in water will be so much reduced; and its hollow form will render it stronger and more elastic, and increase its resistance to breakage and kinking. FREDERICK W. GROTE.

40 Avenue B, NEW-YORK CITY, Oct. 9, 1865.

ELECTRIC CONDUCTORS.—Mr. John J. Waterson refers to the opinion that electricity travels on the surface of conductors, and suggests that a metallic ribbon would be as effective as a wire of equal surface; and, being lighter, would be more fit for an electric cable, and less costly. Others, on the same ground, have recommended thin tubes instead of solid wires.

DISTRICT DIRECTORS.

NEW-YORK.—W. Steinhoff, United States Tel. Office.

BOSTON.—H. W. Wheeler, American " "

PHILADELPHIA.—Jos. S. Greene, W. U. " "

BALTIMORE.—J. B. Yeakle, American " "

WASHINGTON.—T. H. Sherman, American " "

ST. LOUIS.—W. Stoneback, W. U. " "

CHICAGO.—A. H. Bliss, W. U. " "

LOUISVILLE.—A. Ellison, W. U. " "

NASHVILLE.—D. O. Dyer, U. S. Mil. " "

DETROIT.—S. F. Van Valkenburg, W. U. " "

MAINE.—C. I. Collamore, American " "

Bangor.

ALBANY.—A. L. Whipple, N. Y. C. R. R. " "

UTICA.—J. B. Sabine, W. U. " "

ROCHESTER.—J. H. Crane, W. U. " "

CALIFORNIA.—M. Hodge, Carson City, Nev. " "

NEW-JERSEY.—J. A. Wright, American " "

Trenton.

PITTSBURG.—Geo. A. Hamilton, U. S. " "

HARRISBURG.—J. B. Lyndall, W. U. " "

CINCINNATI.—B. B. Glass, W. U. " "

ST. JOSEPH.—W. H. Woodring, Box 1021. Tel. Office.

OMAHA.—Frank Lehner, INDIANAPOLIS.—G. W. Babbitt, Bellefontaine Railway

Telegraph Office.

TOKEDO.—A. S. Hawkins, U. S. Tel. Office.

DISTRICT PROCEEDINGS.

BALTIMORE DISTRICT.—Regular meeting called to order at 3 p. m., Dec. 3d, in the new room.

Minutes of last two meetings approved.

District Treasurer's quarterly reports accepted.

Mr. T. H. Clinton was elected a member of this District. On motion of Mr. Riley the time of meeting was changed from 3 p. m. on the first Sunday, to 8 p. m. on the first Saturday of each month.

Resignations of T. B. Allen and J. F. Guthridge accepted.

On motion a committee, consisting of Messrs. Riley, Stewart, Kerner, Stuart and Rice, was appointed to prepare a set of rules for the government of the District meeting room.

Mr. Riley offered the following resolution, which was adopted:

"Resolved, That this District heartily endorse the resolutions offered by the delegate from the Maine District in the late Convention; and we hereby inform our own members that any infraction of those resolutions will be promptly noticed by this District."

The Secretary was instructed to notify all six months delinquents that, unless they liquidate their obligations during the present month, their cases will be brought up for expulsion at next meeting. Adjourned.

INDIANAPOLIS DISTRICT.—Regular monthly meeting met at Bellefontaine Railroad Office, Nov. 6th. No quorum being present, adjourned to meet one week from date.

Adjourned meeting met Monday evening, Nov. 13th. Called to order by the Director.

Minutes of last meeting approved.

Report of Treasurer for the month of September read and accepted.

The following gentlemen were proposed for membership: Milton R. Fleming, New-Madison, O., John O. Ewan, of Bellefontaine, O. Rules set aside, and both elected by acclamation. Mr. Davis and Mr. Con. Stone were proposed. Referred to committee. The old committee on credentials having been broken up, the following gentlemen were appointed: Mr. Worth, Mr. Cone, and Mr. Brewer. Adjourned.

NEW-YORK DISTRICT.—Regular meeting held at their room on Tuesday, Dec. 5th.

The Director having made a few remarks relative to the inability of the District to hold its regular meetings during the past two months, in consequence of the seeming negligence of members, and trusted in future

that they would see the importance of punctually attending the same.

The Director then presented his yearly report, which was approved, and, on motion of Mr. Edwards, it was ordered to be manifolded, and a copy be presented to the members.

The Treasurer's report was accepted, and ordered to be placed on file; and in consequence of the Treasurer's time being fully occupied with other duties, he presented, through the Director, his resignation, which was accepted.

The next in order was the election of a District Treasurer, in consequence of the resignation of Mr. Brown, and resulted in favor of Mr. Noah Loder, of the United States Company's Office.

The Ball Committee presented a verbal report, announcing the engaging of Irving Hall, band, etc., for the 19th of February.

Mr. Smith being called to the chair, the Director presented the following resolution:

"Resolved, That the last part of clause three article one of the District By-Laws, commencing with the words, 'In the usual manner,' be stricken out, and the following be substituted: 'Cause a notice to be given in THE TELEGRAPHER in its issue next preceding said meeting.'

Carried.

The delegates to the late Convention presented their report, which was accepted, approved, and ordered on file.

Mr. Loder moved a resolution of thanks to the gentlemen composing the delegation to Chicago for the very able manner in which our District was represented, both in the "Convention" and at the "Briggs House," which was carried unanimously.

Mr. Smith moved that a committee of three be appointed to draw up a set of resolutions, thanking Mr. E. B. Chandler, and the other members of the Chicago District, for the very handsome entertainment given to our delegates at the last Convention held in that city, which was carried, and the following-named gentlemen were duly appointed to act as said committee: Messrs. Smith, Dennis, and Edwards.

On motion of Mr. Smith, the Secretary was instructed to request Mr. Collins to make the final report of his committee at our next meeting.

Mr. Edwards moved that a committee of one be appointed to wait upon our Secretary, and ascertain if he intends to accept the position as Secretary, which was carried, and the gentleman making the motion was duly appointed to act as such committee.

Having no further business, the meeting adjourned.

HARRISBURG DISTRICT.—Regular meeting held on the evening of Dec. 4th. Meeting called to order by the Director at 9 o'clock.

A. R. Kiefer appointed Secretary *pro tem.*

Minutes of last meeting approved.

The Director read a letter from S. K. Rupley, District Secretary, tendering his resignation on account of his removing from this District; upon a vote it was accepted, and a vote of thanks tendered him.

District Treasurer read his report. Accepted. Committee appointed at last meeting to draft resolutions, inviting all operators in this District to join us, and made a report, which was accepted.

Mr. Wilson read an address on Telegraphy. Upon motion, Mr. Wilson was requested to furnish a copy of the address to the District Secretary to send to THE TELEGRAPHER for publication. Adjourned.

BOSTON DISTRICT.—Special Meeting.—The Director, Mr. H. W. Wheeler, tendered his resignation, owing to lack of time at his disposal in which to perform the duties of Director in as faithful a manner as he desired, and the District had a right to expect. In order to bring the matter before the meeting, Mr. Roberts moved that the resignation be accepted, which, upon being put to vote, was negatived by an unanimous vote. The suggestion

being made that one or more members might be selected to aid the Director in the discharge of his duties, and Mr. Wheeler signifying his willingness to retain the office of Director if such assistance could be rendered, it was moved that the Director be empowered to appoint two or more members to act as Secretaries, and to do such writing as he should request, which, upon being put to vote, was adopted. The Director appointed Messrs. Barrett and Martin.

The District Treasury being in a poor condition, a tax of \$1 50 on each resident, and 50 cts. on each non resident member was ordered. It was also voted to fine each member, whose residence was not over five miles from Boston, 50 cts. for each and every absence from regular or special meetings of the District, provided they do not present an excuse which shall be satisfactory to a majority of the members present at such meeting.

ALBANY DISTRICT.—Special meeting convened pursuant to notice at the District rooms, Dec. 12th. Twenty-seven members present. The Director read applications from Fred. H. Lawrence, of the W. U. Company's Albany office, and John I. Winnie, of the N. Y. Central Railroad Company's Albany office, for membership. Mr. Lawrence was unanimously elected. Mr. Winnie was defeated.

Mr. Rice offered the following:

"Resolved, That we tender to Mr. E. B. Chandler, and other members of the Chicago District, our heartfelt thanks for the noble and generous treatment our delegates to the late Convention received at their hands.

"Resolved That, our Secretary be instructed to forward a copy of the above to the Chicago District, also one to THE TELEGRAPHER for publication."

Unanimously adopted.

The District Director gave notice that he had transferred R. J. Fowler to the Louisville District, and P. B. Delaney to the Philadelphia District.

Ordered that the District Director purchase ten copies of No. 17, Vol. 2 of THE TELEGRAPHER, and forward them to G. W. Ford at Montreal for distribution, the funds to be paid from the District Treasury. Adjourned.

PHILADELPHIA DISTRICT.—The regular meeting was held at St. James' Hall on Dec. 4th, the Director in the chair. Owing to absence of District Secretary, reading the minutes of last meeting was dispensed with. Mr. H. C. Robinson, Delegate to Chicago, read his report, which, on motion, was laid over one month. Mr. Wm. Dyer's resignation as Local Director was received and accepted, and the thanks of this District tendered for his able services. The resignation of Mr. W. E. Tidney as member of the Union was received and accepted. Mr. Geo. E. Baker, being nine months in arrears, was suspended for non-payment of dues.

The Director was authorized to draw on the District Treasurer for fifty dollars, and invest the same in United States bonds. There being no further business, the meeting adjourned until the first Monday in January, 1866.

NEW-JERSEY DISTRICT.—Regular meeting was held at Lambertville N. J., Tuesday evening Dec. 12th, 1865. Meeting called to order at 8.45 P. M. by the Director. Mr. Bloom, Sec'y, being absent, J. Roberts, of Lambertville, was appointed Sec'y *pro tem.* Eleven members present.

Minutes of previous meeting read and approved.

The Director in his address to the meeting, made some very appropriate and happy remarks. In his allusion to his having taken it upon himself to call this meeting in Lambertville, he trusted they would all appreciate his motives. New-Jersey District being scattered all over the State, he said he felt there was something wanting to bring them more closely together, and the happy idea struck him that, by calling the meeting once a quarter in different parts of the State, operators who were not able to meet in Trenton, might be in some other city, and thus become more friendly to each other, and also better acquainted with the workings of the District. In order to do this he required their approval and support, as it

would be necessary to alter the second section of Article 1 of the by-laws, and he would like the views of this meeting fully expressed upon it. He also suggested the idea of inviting operators of neighboring Districts to meet this District at its regular meeting, and he also hoped that, should this suggestion meet with the approbation of other Districts, all who could, would reciprocate these friendly meetings, and thereby become better acquainted with the workings of each District. On motion, the views of the meeting were taken in regard to altering second section of Article 1st to read as follows: The regular meetings shall be held on the second Tuesday of every third month. Carried.

District Treasurer Hinman made his report, which was accepted.

Mr. W. H. Bayley, of Greensburg, and Mr. Chas. T. Moon, of Lambertville, applied for membership, and, on motion, were unanimously elected.

Mr. Wesley Vankirk, of Bordentown, applied for membership, and, on motion, his application was laid over until next meeting.

The Director, with appropriate remarks, presented the resignation of Mr. J. J. Bloom as Secretary, which was accepted, and, on motion, the meeting went into an election of a Secretary, when J. E. Moon, of Phillipsburg, was unanimously elected.

Mr. Hinman presented his resignation as Treasurer, which, on motion, was not accepted.

The Director presented a letter of Mr. Beals resigning his membership with the Union, which, on motion, was accepted, and the thanks of the District tendered to him for his services as Secretary. On motion, the thanks of the District were tendered to Messrs. Skillman, Titus and Roberts of Lambertville, for providing room, etc., etc. It was resolved, on motion, that the next meeting be held at Bordentown. Adjourned.

ST. JOSEPH DISTRICT.—Regular meeting held Dec. 10. Called to order at 3 p. m. The Director in the chair. Minutes of the previous meeting approved. The Chair stated that he had appointed Mr. E. Martyn, of Leavenworth, as his counsel for the year.

The following named gentlemen were announced members of this District by transfer: John J. Goulding, from the Cincinnati District, and F. G. Waddel, from the Baltimore District.

Mr. A. Graves, of St. Joseph Depot, was presented as candidate for membership, and declared elected.

The Committee of investigation in the case of B. McMurtrie made its report, which was adopted by acclamation. Adjourned.

THE ATLANTIC TELEGRAPH.

To the Editor of The London Times:

SIR: In the review of the work by Dr. W. H. Russel on the subject of the Atlantic Telegraph expedition in 1865, which appears in your columns this day, the expedition referred to is spoken of as "the late, and possibly, for some time to come, at the last, Atlantic Telegraph expedition." In making use of this expression, the writer was necessarily unaware of events which have recently transpired, and I am therefore instructed to ask of you the favor to allow me to state that the arrangements of the Directors, as to new capital are now completed, that several hundred miles of the core or interior portion of the cable are completed, and that the Great Eastern is chartered to go to sea in June, 1866, for the double purpose of laying an entirely new cable, and of raising the broken end of the 1,100 miles of cable laid this year, so as to splice additional cable thereto, and thus, if successful, furnish to the public a second means of communication.

This 1,100 miles of submerged cable is ascertained to be in the most perfect order, by daily tests taken from the time it broke, and still continued daily. The buoys at the end of it are washed away, but this is of no consequence, as they were intended only for a temporary purpose, the spot for grapnelling having been laid down by solar observation, so that a good navigator can at any time sail to within half a mile of the broken cable.

Yours, faithfully,
GEO. SAWARD,
Secretary and General Superintendent.
Atlantic Telegraph Co., No. 12, St. Helen's place, Bishopsgate-st.-within, E. C., London, Dec. 11, 1865.



TUESDAY, JANUARY 2, 1865.

SUNDAY WORK.

He who created the world finds time to do all His mighty work in six days, and takes glorious rest on the seventh ; but we mortals, who to Him are less than pygmies, seem unable to perform our small bee-like labor in the time which God allots to himself. We are expressly commanded to do all our work in six days, and to REST on the seventh, but we cannot all command our time, or do as we desire. Corporations are said to have no souls, but some one very aptly says that each individual stockholder and director in a corporation is personally responsible for any and every violation of the Sabbath by the employees of it in doing its work. If this be so—and why not?—what a fearful load of sin must be heaped upon the backs of the stockholders and directors of telegraph companies !

Is there any good excuse for desecrating the Sabbath, as has been done since telegraphing commenced in this country, by the companies owning the great through lines ? We think not.

We remember but two men holding responsible positions who ever combatted against Sunday work. The late James Eddy strove constantly and strenuously against the system, and wherever he had the power it was abated, but over some routes he was overruled ; but it was sad for him. Although declining to have any hand or part in the evil, he always labored to ameliorate its hardship and wickedness for those who were compelled to carry the yoke. Mr. J. D. Reid we believe to be the only other person who placed himself in antagonism to the system which takes from so many the blessings of a day of rest.

The lines running west from this city have always exercised some little independence and manliness in this robbery of a man's rights, and have never wholly yielded to the importunities of the silver-tongued press. These western lines have generally opened on'y late Sunday evenings for press business.

The several companies, out of which the present American Company grew, early sold themselves, bodies and souls, to the New-York Associated Press, and the present company still recognize the sale, and bow to the great God. Who will ever give back to the employees of this company these many stolen hours ?

Who will—who can—repair the damage done to their religious and moral feelings ? Many will laugh, and ask : Whoever saw a telegrapher with any religious or moral feelings ? We were all young and innocent once, and the most of us had in those sweet days a feeling of goodness, but which is now made callous by these compulsory Sabbath-breakings.

It is alleged that the times and the people demand this sacrifice. This we deny. Who has ever heard the voice of the people asking for this desecration ?

The press demanded, and the enterprising (?) companies yielded, a ready acquiescence, and the innocent suffer.

Have the companies, through their officers, ever tried to lighten this load for their operators ?

The news is telegraphed Sunday evenings generally after nine o'clock for the Monday morning papers ; is there, therefore, any need

of keeping a score of operators waiting till a late hour on Saturday nights for the Press's, "Good-night?" If we must work Sunday nights, do, we pray you, give us Saturday night for our Sunday evening.

During the war, emergencies required that certain important points should be kept in constant communication with the military and naval authorities at Washington ; but was this an excuse for opening an hundred offices for nothing more than a hope of a little gain ?

TELEGRAPHIC MISCELLANEA.

OUR THANKS are due, and are hereby returned, to Messrs. W. H. H. Clarke, of Washington, A. Wilson, Jr., of Baltimore, and W. P. Potter, of Fall River, for several copies of back numbers of THE TELEGRAPHER, for which we inquired in our issue of the last ult. By these generous gifts, we have been able to complete several volumes for subscribers. Our call for numbers from two to seven inclusive is still continued. We hope it will be heeded, for we believe there are many of these numbers lying unused throughout the States.

THE quotations of Telegraph Stock appeared in our last issue without alteration. We sent the alterations—viz., Western Union, 55, American, 125, Russian Extension, 26, United States, 56—to the printer, but the provoking fellow seems to have thought he knew more about the price than we, and had his own way, much to his evident satisfaction and our chagrin.

MESSRS WALTON BROS., 67 Warren street, this city, dealers in hardware of all kinds, of which they make that used by telegraphers a specialité, have placed us under obligations for several articles of pocket-furniture, consisting of a handsome four-bladed pearl-handle knife, a brass-bound pocket-rule, and a twelve-foot pocket tape-measure, each and all "good things to have in the country," and "handy to have in the pocket."

We hope all our readers enjoyed a merry Christmas, and we wish them all a Happy New Year. We regret that existing circumstances prevent our other-self from receiving calls upon that day.

MR. E. L. F. RANDOLPH, a fair, sound operator, having resigned his position in American Company's Boston office, would like a situation. Further particulars by application to H. W. Wheeler, Director, Boston District ; or address, Mr. Randolph, care H. W. Wheeler, American Telegraph Office, Boston.

NATIONAL SYSTEM OF TELEGRAPHING.—On motion of Mr. Alley, Rep. from Mass., it was resolved that the Committee on Post-Offices and Post Roads be instructed to inquire into the expediency of establishing a national system of telegraphing, by which all telegrams shall be forwarded under a system similar to our present postal service, within the exclusive jurisdiction of the Post-Office Department.—*Congressional Proceedings, Dec. 21.*

A POOR DODGE.—A person calling himself Charles E. Dodge, who alleges to have been superintendent of some railroad telegraph line out West, and bringing a letter of recommendation from some gentleman known to us by name, but which escapes our memory now, applied to us on Monday, December 11th, for a situation as an operator, appealing to our benevolence, at the same time, with the story that his only sister was an invalid, whom he had brought to the city for treatment, and that he desired work to enable him to be with her here among strangers. Being in need of an operator, we requested him to give us a trial of his skill, when we could decide if he would answer our wants. His alacrity in "jumping right in" took our heart, but a trial of a day or so convinced us that his capacity wasn't quite up to our requirements. Upon informing him of the fact on Wednesday morning he seemed somewhat distressed, when we benevolently gave him simple introductions in writing to Messrs. the Managers Finch, Roberts and DeWitt. Before the young man left, he returned us a pencil which we gave him the day previous. This we thought remarkable for a telegraph-operator, and were more disposed in his favor. Soon after we discovered the following lines in his handwriting lying carelessly on our desk :

"Your letter is received; thank God I can now call you 'Dear Nellie.'

"WHICH NAME SOUNDS—"

After reading this prayer from the heart, our sympathies for the poor unfortunate were stirred to their very depths, and our old heart yearned for him as does a mother's for a lost child ; but a something staid our anxious feet from hastening after him, and doing for him the Samaritan's sweet labor. Later in the day we were sent for with the hurried message that a gentleman wished to see us on *particular business*. Hastening to our office, sanctum, etc., we were presented by a red-faced stranger one of the message-blanks of the Company who tolerates our inefficiency, which contained a pledge over our official name, going security to any amount for this Artful Dodge(r.) This was addressed to his boarding-mistress in Varick street. We curled our nose with scorn, and pronounced our "sig." a forgery, and so wrote across the face of the pledge. We found that this harmless youth and child of misfortune had borrowed during his brief stay with us, twenty-five cents of the Delivery Clerk, and twenty cents from a fellow-operator. On Wednesday night we tried to help him take his first steps toward Sing Sing, but the returned soldier who does the honors of the boarding-house in Varick street, allowed his ire to get the better of his judgment, and frightened this poor bird away.

On Thursday night, December 14th, L'Enfant Perdu registered his name at the Astor House as J. S. Dorsey, and ordered a trunk bearing this name to his room. Its owner calling for it soon afterward, search was made, when it was traced to the room of this

unhappy youth. The door being locked inside, admittance was demanded, which, upon being complied with, the trunk was discovered rifled of its contents. A tender-hearted guardian of the night was besought to carefully conduct this distressed young man to safe quarters, away from intruders.

We hope to be able to help find a pleasant rural retreat, upon the Rhine-like banks of the deep-gliding Hudson, for this poor and particularly unfortunate young man, and our great heart beats with huge throbs of sympathy for his weak-backed sister and "Dear Nellie," for whose sake God was thanked.

ARTEMUS WARD volunteers to go about explaining his jokes, but we hardly expected to be called upon to explain our attempts at a witticism, no matter how dreary they might be.

Before the ink was dry on our issue of Nov. 15th, we received, by the hands of a fleet-footed messenger, the following note:

"SIR: At the close of the editorial in your last paper is the following inaccuracy: viz., 'Vol. I., exēunt.' In the Latin Grammar you will find the following rule: 'Verbum personale concordat cum nominative, numero et persona ut, Vol. I., Exit.'"

We heartily congratulate our correspondent upon his excellent knowledge of Latin, and, considering he is not a subscriber to THE TELEGRAPHER, we think he picked at our bad Latin, as it appeared to him, and which we will not undertake to defend, very quickly, and fear he deprived some subscriber of a choice morsel of telegraphie tid-bit for the space of half an hour, which we consider very ungenerous on his part.

We always thought every school-boy old enough to "speak a piece" knows that "exēunt" means "they go out," or "exēunt omnes" "all go out." As the printers, the saucy fellows, had laughed heartily at the plurality of numbers of our maiden volume, we dared to use a little license and speak of it plurally, but we are sorry for this dreary pleasantry, and beg our non-subscribing correspondent's pardon for so lacerating his Latin feelings, and do assure him we will "never do so no more," if we know enough to do right.

CHANGES, ETC.—Capt. W. G. Fuller has been relieved as Military Superintendent of the Department of the Gulf, by Capt. W. L. Gross, late of the Department of the Cumberland. The latter-named officer has been promoted to a Lieutenant-Colonelcy, an honor well deserved.

Mr. F. Benner, formerly of the Department of the Cumberland, has been appointed Assistant Military Superintendent of the lines in the vicinity of Jackson, Miss. Mr. C. W. Moore has been succeeded by L. H. Korty as chief operator at New-Orleans. Mr. Moore has relieved J. R. Frank as chief operator at Mobile, Ala. Mr. L. B. Spellman has been appointed Superintendent of all military telegraph lines in Texas.

Mr. Abram Craven has resigned his position as freight clerk on the R. & S. Railroad at Albany, to accept a position with the W. U. Company at Albany.

Mr. B. P. Snyder, who has so acceptably filled the position of manager of the American Company's Washington office, has been appointed Superintendent of this Company's lines from Washington to Raleigh, N. C. Mr. W. H. H. Clarke, ex-Director of the Washington District, succeeds Mr. Snyder as manager, and Mr. T. H. Sherman, the present Director of the above-named District, succeeds Mr. Clarke as assistant manager.

Mr. C. H. H. Pannell, late Cashier of the United States Company's N. Y. office, has been appointed Superintendent of Tariffs upon this Company's fast-increasing lines. Mr. Henry Jones has resigned the Treasury and Secretarship of the Bankers' and Brokers' Company, and Mr. G. A. Pope, of Baltimore, has been elected to fill his place.

Mr. C. A. Runyan, formerly of the United States Military Telegraph, has been appointed managing-operator of the Orange and Alexandria Railroad Telegraph at Alexandria, Va.

BOSTON, Dec. 12, 1865.
Notice is hereby given that charges duly made are pending against Mr. George N. Norton, of the Boston District.

T. A. Davin, H. S. Martin, and D. C. Roberts, committee of investigation.

THE FIRE-ALARM people are having trouble. At the time the great American pro-slavery rebellion was inaugurated, John N. Gamewell & Co., of Charleston, S. C., were the assignees of all the patents in the Fire-Alarm Telegraphs. On presumption, or supposed proof of disloyalty the patents were confiscated, Kennard & Co., of Boston, becoming the purchasers. Gamewell has since been reported dead. It now appears that he has been an inmate of an insane asylum ever since about the time of the firing on Fort Sumter, and, as a consequence, being *non compos mentis*, could not be either a disloyal or a loyal man. He has lately recovered, and is at present in Washington trying to get possession of his property. He has given notice to all using or building after his patents, that he will prosecute each and every infringement thereof. Who owns the American Fire-Alarm Telegraph is now the question?

THE CHICAGO & N. W. R. R. COMPANY has just completed its second wire from Janesville to Green Bay, and are also building a line from Madison, Wis., to Harvard, Ill. The N. W. Telegraph Company are putting up a line between Nagance and Marquette, Mich. The Ill. and Miss. Company has just completed its third wire from Chicago to Mendota. It is proposed to extend the same to Dubuque, Iowa, in the spring. It has also completed a line from Keokuk, Iowa, to Oskaloosa, Iowa, on which the following offices are opened: Summit, Bonaparte, Independent, Eddyville and Oskaloosa. This line will be finished to Des Moines by January, 1866.

WE ACKNOWLEDGE the receipt of a ticket to the "Fair of the Puritan Church to aid in paying off the debt of the Society," whereat Mr. C. H. H. Pannell exhibited to the uninitiated the wonders of the Morse telegraph instrument. Also, the wedding cards of Mr. and Mrs. George K. Smith.

THE DIRECTOR of the Baltimore District wishes to learn the address of D. Colestock, R. A. Furr or Farr, and W. H. Lancaster, formerly in the U. S. Mil. Telegraph Corps, Kanawha Valley, West Virginia.

WE shall publish in our next issue Mr. Stover's reply to the letter of M. E. Lewis printed in our last issue.

PATENT CLAIMS.—MAGNETIC TELEGRAPH.—Charles Kirchoff, Newark, N. J.:

I claim, First, an independent mechanical operator having a to and fro motion, in contradistinction to a continuous motion in one direction, when said operator is so arranged as to close and break the circuit while passing in one direction only, and this I claim whether the design-line be stationary, and the contact-maker movable, or the reverse, or both are made movable, substantially as described.

Second, I claim so arranging the design-line, or a series of them, in combination with a contact-maker, that by their combined action as herein described, additions, combinations or variations of the single signals may be produced at pleasure by the use of a mechanical operator, as set forth.

Third, I claim limiting the to and fro movement of the operating parts by means of the slides, stops, and pointers, whereby I am enabled to regulate the number of signals sent as may be desired.

Fourth, In combination with the mechanical operator, I claim the use of the adjustable contact-breaker, &c., for the purpose of creating an interval or space between the various series of signals sent, whereby one series may be distinguished from another.

Fifth, I claim two or more independent mechanical operators, when arranged to operate successively, substantially as described.

Sixth, I claim so arranging two or more mechanical operators, that, as one ceases to operate, it shall release or set in operation another, whereby a compound telegram may be produced, substantially as described and illustrated.

OUR CITY POLICE TELEGRAPH.—Heretofore considerable delay existed in ascertaining the locality of fires. That

difficulty, it seems, has now been removed by a recent order issued by the Police Commissioners to Mr. James Crowley, the Superintendent of the Police Telegraph.

It requires the operator at the central department, in Mulberry street, on receipt of the locality of a fire, to immediately call all the stations in the city on a general alarm, and to forthwith communicate such information. Thus, in a few minutes, after the breaking out of a fire each station-house will be furnished with the locality, which fact is at once recorded on their blotter.

It frequently occurred that merchants, residing in the upper part of the city, were anxious to ascertain the whereabouts of a fire, and would apply to the nearest police-station, and were too often met with the reply, "We don't know." Hereafter, no such replies can be given, if the sergeant in command only is attentive; as the information is sent to all stations at one time by a very ingenious apparatus or instrument invented by Mr. Crowley the Superintendent.

The application of galvanism to firing submarine charges was first put in practice by General Pasley, in 1839, on the wreck of the Royal George.

THE UNION LEAGUE CLUB.—The regular monthly meeting of the Union League Club was held at their rooms in East Seventeenth street, Dec. 13th, Charles Butler, Esq., presiding.

After the transaction of business, Mr. P. McD. Collins was introduced, and delivered the same lecture which he read before the Travellers' Club on the 8th of November.

The telegraph will soon be extended from Guanajuato to Tampico and Matamoros, Mexico.

THE RUSSIAN-AMERICAN TELEGRAPH.—Victoria papers of the 13th say that Major Frank L. Pope and party, of the Russian telegraph, were at Buckley's house, near Talla Lake, all well. Everything was progressing finely. Mr. Conway and party had communicated with Major Pope, and returned to Victoria. The line has been completed 440 miles above New-Westminster, and the wire for 400 miles more was on the ground.

[From the Montreal *Gazette*, Nov. 10.]

WANTING TO PUNISH THE TELEGRAPH COMPANY.—We think it is well to direct the attention of the Canadian Government to a series of inflammatory telegrams, about Fenianism and the feelings of the Canadians thereto, which from time to time appear in the New-York papers, and particularly on the mornings of departure of the steamers for Europe. These telegrams are dated from Toronto. We understand they are not sent by the Montreal Company's line, but by a new one called the "Provincial," which is a private enterprise, not a chartered company.

TELEGRAPHIC FEAT.—The Memphis *Bulletin* of Nov. 26 says: "Last night, for the first time in nearly ten years telegraphic communication was held between New-York and New-Orleans. The first message transmitted from New-York to New-Orleans was as follows:—"Weather clear and pleasant. Time 8:55." The answer returned was:—"Weather clear and cool. Time 7:50." Another dispatch from New-York was followed by thirty-one messages from New-Orleans to New-York, occupying about forty minutes, each message averaging twenty words. This length of line has been worked only once before, and that was between San Francisco and New-York a few months ago, the only success attending which was the transmission of a few words. This leaves the credit to the stretch of line between New-Orleans and New-York of being the longest over which any business has ever been done in this country."

MARRIED.

In Grafton, Western Virginia, Dec. 7, Mr. A. T. Cline to Miss Lizzie H. Hammond.

In Clarksburg, Western Virginia, Dec. 14, Mr. George K. Smith, of Columbus, Ohio, to Miss Mollie R. Lewis, of the former place.

In Boston, Mass., Nov. 29, 1865, Mr. James E. Bliss, to Miss Annie C. Slack, of New-York.

THE TELEGRAPHER.

THE TELEGRAPH WIRES.

TO O. S. WOOD.

I.

THE WIRES LOQUENTUR.

HURRAH for the veins of the country,
Throbbing with fiery blood!
Hurrah for the wires that carries the thoughts
Of the city's multitude!
The gleaming rails are the sinews
That sway the strong right hand,
But the wires carry the heart-blood thoughts
Across the busy land.

Hurrah for the purple prairies
That robe our royal land!

Hurrah for the dark green glory of pines
That towers on every hand!

And hurrah for the father of harvests
That gallops to meet the sea,

As a warrior spurs a foaming steed
To the perilous victory!

Clicking away.
We're at home in the pathless prairie;
We're at home in the solemn woods,
Where the red fox patrollers over red leaves,
And whirs the partridge brood.

Then away across the sunset land,
By homesteads mossed and gray,
The march of the lessening telegraph wires
Goes into the reddened day—
Clicking away.

Deep down in the silent water,
Where a tremulous splendor dwells,
On the slanting walls of golden halls
And the rainbows of the shells,
Our wires are speaking living words;
Down in the dusky gloom
Clicking away, night and day;
Passionless tongue that never tires:
Joy and grief have a similar sound
Over our wires.

II.

THE WIRES IN PEACE.

We start from the busy city,
That throbs to the rush of feet,
Where the hurrying army of trade
Goes rushing down the street.
We pass the white-walled cottages
With a pleasant sound of bees
That croons the sultry day to sleep
In the clover under the trees—
Clicking away.

The iron horse flings his smoky mane
As he thunders among the hills,
Shaking the harvest fields that dance
To a murmur of musical rills.
We cling to his trail in the happy land;
We bend above the stream;
And our glimmering posts troop by like ghosts
In the traveler's midnight dream—
Clicking away.

III.

THE WIRES IN WAR.

We march in the van of the army
That rolls to the far-away fight,
When our banners glow with the presence
Of the God who strikes for the right—
Past the pickets that sternly stand
Each on his lonely post;
And the moonbeam shimmers on the tents
Above the sleeping host—
Clicking away.

We see them march to the battle,
And our veins are big with pride
When the blue coats stoop to the shower of lead
That rains from the mountain side,
Till the battle is white with smoke;
And over the wild unrest
Stream in fierce joy the burning stars
Of the land we love the best—
Then, clicking away.
We hurry, hurry homeward,
When the long day's battle is done,
With news of a great one fallen—
With news of a great fight won.
We thrill along the endless words,
We sing by lowly eaves,
Where the birds fly like a flash of light
Amid the dark cool leaves—
Clicking away.

Where women watch with weary eyes,
And little children wait,
Under the musical sycamore
Down by the garden gate,
And down in the office, from white lips
Paint breath comes quick and short
When the needle clicks the list of killed
In the afternoon report.
Clicking away.

IV.

THE WIRES IN THE CITY.

We leave the cottage home behind;
A gloomy sunset steals
Over the city where the streets
Are thunderous with wheels.
Busy all day the key has been;
Busy all night the types shall be;
To-morrow the news is in the land
Of a glorious victory!
Clicking away.

And crowds are choking every street,
And great bells boom in stately towers;
Flags flutter out on smoky roofs—
After the battle, joy is ours.
Joy on the land, joy on the lake,
Where a hundred ripples of sunshine laugh;
And joy where the ragged newsboy shouts:
"Great news by telegraph!"
Clicking away.

V.

THE WIRES UNIVERSALLY.

We bring glad news to inland homes,
Of ships upon the sea;
We hurry along the murderer's trail—
His Nemesis are we.
We watch all night the roaring trains,
When the sleepless needle clicks
A caution for Number Seven Past
To wait for Number Six.
Clicking away.

We are knitting land to brother land,
And hurrying on the day
When the clouds about the glorious stars
Shall all be rolled away;
When the people shall learn war no more,
Nor again the cymbal clash,
And all the nations speak one speech—
The telegraph dot and dash—
Forever and aye.

THREE RIVERS, C. E., Feb., 1865. "ALLIED."

The Mechanics Magazine says: The Malta and Alexandria telegraph cable has again broken down in the old place where it has so often proved defective—namely, between Bengazi and Alexandria. The mishap is to be the more lamented at the present moment, as the telegraph steamer Hawk, is not available to repair the injury, being away in the Adriatic for the repair of the cable between Otranto and Corfu.

HARRISBURG, Pa., Dec. 5, 1865.

To the Editor of THE TELEGRAPHER:

I HAIL with delight the growing importance of the Union, and feel proud that the profession, of which I have been an humble member for nearly a decade and a half, has awakened to its own importance, and is determined to elevate its character. In doing so, it requires the jealous care and untiring energies of all its followers, that no retrograde movement be made. We must not be lulled into a fancied security by present prosperity, but one and all should work as if the perpetuity of the Union depended upon his individual exertions. A great deal has already been done, and the profession owes an everlasting debt of gratitude to the few master-spirits who, in the face of all the obstacles they had to encounter, have achieved so much success, as is exhibited by the present condition of the Union. But what has been done is but a drop in the bucket to what must yet be done to insure a complete, irrevocable success, without which all the past and present labors are as the barren fig-tree. By a careful perusal of our Constitution and the interesting proceedings of the last Convention, I was struck with what I consider an evident point of great weakness in our organization. I refer to the facility with which the Constitution can be amended, and the large amount of irrelevant matter which, by reason of that facility, has crept into it. I don't want to be understood as attacking the *necessity* of the matter legislated upon, for I recognize an existing necessity for it, but I do question the policy of burdening the Constitution with *that* matter. A Constitution should be a clear, well-defined, well-digested, condensed law, upon which to base all laws for government, and should not be liable to amendment upon the conception of the outlines of an idea, a local necessity, or the caprice of the governed. Tampering with and tinkering at a fundamental law endangers the fabric, and is of fatal tendency. Notwithstanding, there are a great many things I would were out of the Constitution, yet I am in favor of letting it stand as it is, with the addition of putting in a stout plank in place of the weak board, Section 2, Article 14. The plank I offer is this:

ARTICLE 14, SECTION 2.

1. This Constitution shall not be amended twice in five years.
2. Every proposed amendment must be published in THE TELEGRAPHER for at least two months before the meeting of the Convention.

3. No amendment shall be made unless agreed to by a vote of three-fourths of the Delegates present at the National Convention, and ratified within three months after the adjournment of the Convention by at least a majority of the members of the Union.

This would dignify our Constitution, and I propose it in order to stop the rapidly increasing volume of verbiage in that instrument. The Constitution is broad enough to base all necessary legislation upon. Where legislation is necessary let the Convention enact statue laws, which, if burdensome, can be readily repealed without any injury. But for the credit of the profession, don't let us be adopting the Mexican idea of government by perpetually changing the Constitution. Yours fraternally, W. B. W.

BOSTON, Dec. 14th, 1865.

To the Editor of THE TELEGRAPHER:

By reference to the report of the proceedings of the last Convention, it will be seen that I offered an amendment to the Constitution, providing for the transfer of members from one District to another. At that time it did not occur to me that a provision should be added rendering it the duty of Directors, when accepting the transfer-card of a member, to notify the Director of the District from whence the member comes, that such transfer has been received and accepted. This should be done for reasons which will be apparent to every one. To illustrate this necessity we will suppose a case: Mr. Jones, a member of this District, announces his intention to go to New-York to reside, and requests a transfer to that District. There being no charges against him, a transfer-card, duly made out, is given him, and the entry made against his name on the Director's book, "transferred to New-York District," with the date of transfer. On arriving in New-York, Jones concludes that he will not unite with that or any other District. Supposing Jones to have been duly transferred, the Boston District does not, of course, attend to collecting his dues, and, as the New-York District knows nothing of Jones, his dues remain uncollected, and he virtually ceases to be a member of the Union. Such a case has actually come to my knowledge, and I shall take it upon myself to notify the Director of the District from which the party originally came. This difficulty, and all others of a similar nature, will be overcome if Directors will adopt the suggestion above made.

H. W. WHEELER.

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The regular meeting of the N. Y. District will take place in room 52, 117 Broadway, Tuesday evening, January 2d, 1866. Full attendance requested.

WALTER STEINHOFF, District Director.

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THE TELEGRAPHER is published in New-York, on the first and fifteenth of every month, and besides matters of associate interest, is devoted to the interests of telegraphers all over the world, and will contain telegraphic information from all parts of the globe.

It is not confined to any one policy, but will seek to correct abuses, give honor and praise wherever and whenever due, and endeavor to elevate the standard of operators, both morally and scientifically.

It will not support any one person or corporation, but will aim to treat all alike, censuring either or both, when merited, and praising alike when praise is won.

Its columns will not be open to any one for personal abuse, nor for personal profit at the expense of others, nor will it contain any thing that the most fastidious would not read.

THE TELEGRAPHER will contain Original Articles upon any and all subjects of interest to the fraternity and profession; Extracts from Works on Telegraphy, Electricity, and Magnetism; Statistics; Improvements in Telegraphy, Telegraph Instruments, and Materials; Correspondence; Poetry upon Telegraphic subjects; Telegraphic Literature; Incidents and Items of Personal Interest; Promotions; Removals; Resignations; Marriages and Deaths of Telegraphers; Newspaper Extracts of Telegraphic Items from any and every city, town, State, or country.

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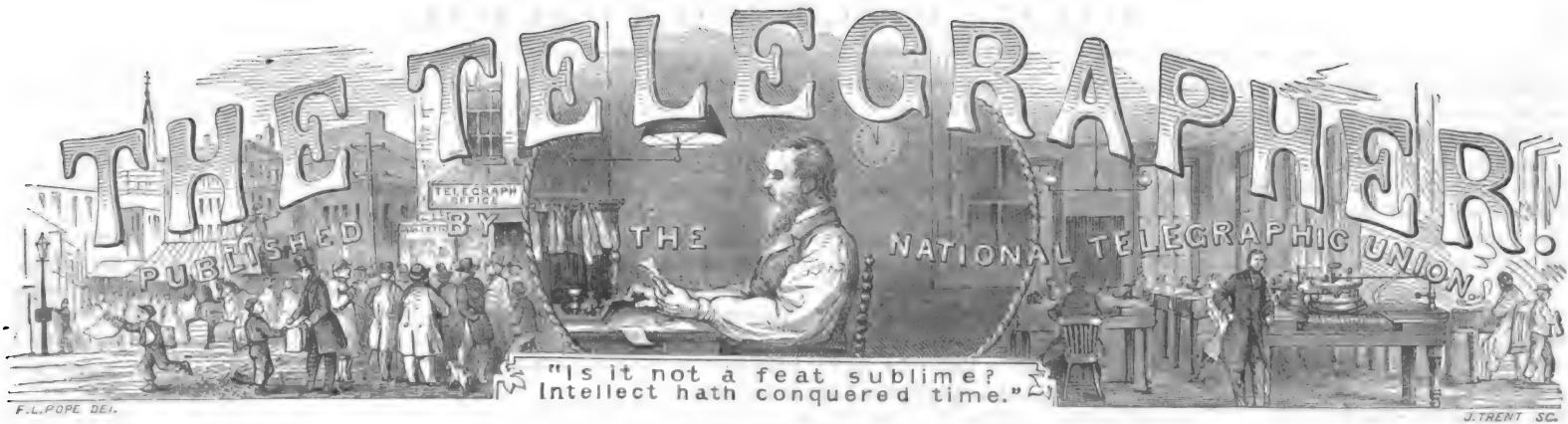
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Vol. II.

New-York, Thursday, February 1, 1866.

No. 21.

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OF THE

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THE TELEGRAPH TO INDIA.

(CONCLUDED.)

DURING the night of the 20th the submergence of the cable continued from the main coil at an almost uniform rate of about five and a half miles an hour, but, if it had been possible for the Zenobia to tow at a greater speed, the operation would have been perfectly safe at even so high a speed as eight knots—so regularly and evenly did the cable uncoil. At noon on the 21st the squadron was in lat. 27 deg. 51 min. N., long. 51 deg. 12 min. E., having paid out from Mussondom three hundred and seven nautical miles of cable; and by 8.30 P. M., the whole of the cable on board the Tweed (three hundred and fifty-one miles) was submerged. The ships then came to an anchor about forty miles from Bushire, having been about seventy-four hours laying the cable from Mussondom. The electrical condition of the line was pronounced by Mr. Laws to have improved considerably, the insulation being double that of any line hitherto laid in any part of the world.

About 11 o'clock the Coronandel, with the Assaye in tow, arrived and anchored close to the Tweed. It was, however, too late to commence the difficult and tedious operation of transferring the men and stores from one ship to the other. At daylight on the morning of 22d March, the end of the Tweed's cable was passed on board the Assaye, and the splice made on board the latter vessel. The day remained calm throughout, so that by midnight the squadron was enabled again to get under way, and the Assaye, in tow of the Zenobia, commenced paying out cable in the direction of Bushire. By daylight on the morning of the 23d of March, the snow-capped mountains, which rise to an altitude of twelve thousand feet, some thirty miles inland from Bushire, were plainly visible in the morning sun, and before 9 A. M. the ships anchored about three miles off Rashire, the intended landing-place, which lies about eight miles east of the town of Bushire—the total length of line paid from Elphinstone Island being four hundred and thirty miles, and the whole of the wire being in as perfect a state as could be desired. It is curious what changes and vicissitudes a place will see in the course of a very few years. It was not quite seven years since that these same ships anchored in the very same place for the purpose of landing the British force destined for the siege of Bushire during the Persian war. Although their present mission was so different, it was evident that the inhabitants did not feel at all certain of their pacific intentions, for it was some time before any boats came off, and those that did for a long time kept

clear of the cable ship, the Assaye, she having been one of the vessels most actively employed in the destruction of the Persian batteries in 1857, as many a patched and torn plank in her deck testifies. The town of Bushire itself does not appear to have suffered commercially from the English bombardment. The ruined buildings and fortifications still remain unrepaired, but the material prosperity of the place has augmented many fold; and, instead of being the resort of a few native craft, it is now a regular port of call for two line of steamers between Bussorah and Bombay. The landing-place having been selected during the morning of the 24th, the shore end was coiled on board the Amber Witch and into the paddle-box boats of the Zenobia, before dark was landed, and the communication opened between Mussondom and Bushire, a total distance of four hundred nautical miles. On the 25th of March the second shore end was landed from the Assaye, and on the morning of the 26th the squadron started for Fao, at the mouths of the Euphrates and Tigris. During this portion of the work the late Colonel Stewart came on board to witness the paying out.

There is little to record of this section. The ships skirted along the Persian coast, the cable going out at an uniform speed of five and a half knots an hour, all the machinery working in the most regular manner. At 2.30 P. M., on the morning of the 27th of March, the change from the fore to the after hold coil was successfully made. As soon as it was daylight the Victoria, which had been sent on ahead to mark the line of soundings, was seen, and during the day the line of buoys we had laid down from the mouth of the rivers was passed. At 4 P. M. the ships were within about twenty-five miles of Fao, and began to feel the tremendous effect of the currents of fresh water discharged into the Gulf from the Euphrates and Tigris. The vessels were going by log over six and a half knots, but by the speed of the cable were only advancing two and a half knots over the ground, which showed a fresh water surface current of four miles an hour. At 7.30 P. M., when within about seven miles of the shore, the water became so shoal that it was deemed advisable to anchor for the night, having paid out one hundred and sixty miles of cable from Bushire. At daylight on the morning of the 28th of March, those unacquainted with the place were astonished to find no land in sight. The water was extremely shallow, and the muddy volume of the great rivers swept past with most astonishing velocity, both proofs of our vicinity to our destination: yet not a vestige of land was in sight, the truth being that there was none within fifty miles that deserved the name; that is, there was nothing within that distance raised six inches above high-water mark. A very cursory examination was sufficient to convince Sir Charles Bright that landing a cable over such a mud-flat and in so rapid a tide-way would be a matter of great difficulty. No ship in the squadron could go within five miles of the shore, and, even with the advantages of high water, no boat would float within a mile of the high-tide mark; and after all these difficulties the cable would have to be dragged a distance of four miles over a flat of thin pasty mud, covered at high water, before

the floating station in the river could be reached. A slight accident which occurred to the cable about ninety miles from the terminus, and occupied nearly a week in repair, allowed ample time for the completion of this part of the work at leisure. The necessary length of cable for crossing the mud flat was cut into pieces of about a mile in length, shipped on board the flat steamer Comet, and sent round to the river; these were then dragged by sheer force through the mud to their places by about five hundred Arabs. The different lengths were then spliced together, and the communication completed between the floating station at Fao and the shore at Khore Abdallah. It now only remained to land the end of the cable from the Assaye to complete the line from Bombay to Bussorah. This was, however, a work of no ordinary difficulty, owing to the shallowness of the water, and the depth and softness of the mud, as already mentioned. On the 4th of April, everything being in readiness, the Amber Witch, having taken a quantity of cable on board, steamed in as near as her draught of water would allow her to go to the shore (about five miles). About five miles of cable, weighing some twenty tons, were then distributed among ten of the largest boats belonging to the fleet; and early on the morning of the 5th of April the long flouting procession started from the Amber Witch towards the shore. When some four miles of cable had been paid out, and the boats were about one mile from the semi-fluid bank which was dignified with the name of shore, the boats grounded. Though there was very little depth of water, there was any depth of mud, of about the consistency of cream. There was no use in hesitating; the cable must be landed at any risk; so Sir Charles Bright, to set an example to his staff and the men, was the first to get out of the boat, and stand up to his waist in the mud—an example which was followed by all the officers and men, upwards of a hundred men in number, who were all soon wallowing in the soft yielding ooze up to their chests, but still dragging the end of cable with them. The progress through such a material was necessarily slow; half swimming, half wading, it was impossible to rest for a moment without hopelessly sinking below the surface; yet no one thought of abandoning the cable. Though it was only two o'clock when the party left the boats, and the mud bank to be traversed was little over a mile, it was nearly dark before the last of the party reached the shore. All were grimed with mud, and nineteen out of twenty were nearly naked, having lost or abandoned almost every article of clothing in the struggle to reach the land. But in spite of obstacles the cable had been landed, and that at least was some consolation.

But the troubles of the party were not yet over, for it was found that the ships of the expedition which were waiting to receive them in the Tigris, were lying at the other side of another mud bank, only a little less fluid than that which had just been passed, and four miles in extent. To make matters better, a thunderstorm, truly tropical in its violence, was raging, and the tide, which washes the banks, was rapidly rising. The party, however, made a dash for it, and all succeeded in reaching the ships with the exception of one of the Lascars, who was

overwhelmed by the mud and the tide, and sank before assistance could be afforded. The remainder of the party were much exhausted, some few so much so that they had to be carried by their companions. Though the line was landed it was many days before the electrical communication was completed between the floating station in the river Tigris; for the four miles of cable necessary for the purpose had to be dragged through the mud by the sheer force of five hundred or six hundred Arabs. The line was now completed from the Indian system of telegraphs to the mouths of the Euphrates and Tigris, a distance of over one thousand miles of submarine cable; and the land lines from the mouth of the Tigris to Bagdad, and from Bagdad through the wilds of Mesopotamia, over the site of ancient Nineveh, and thence on to Aleppo and Constantinople, has also been finished, but it was still found impossible to open the communication throughout. A dispute had unfortunately arisen between the Turks and the Montane tribe of Arabs, who occupy a portion of the territory between the head of the Persian Gulf and Bagdad, which led to the interruption of about one hundred and sixty miles of the line. The difference was not settled until the hot weather commenced, and thus the line remained in an incomplete state until last week. During the interval alternate lines were laid over those portions of the route which were considered most liable to interruption. The line from Kurrachee to Gwadel, along the Meckran coast, a distance of some three hundred miles, was considered not altogether safe, alike from the nature of the ground and the disposition of the inhabitants. There being plenty of cable remaining for the purpose, it was determined to complete the sea line to Kurrachee. For this purpose the Assaye and Cospatie cable ships, and the steamships Zenobia, Scinde, and Amber Witch left the head of the Persian Gulf on the 18th of April for Gwadel. On the 3d of May the shore end was landed at that place, and in the afternoon the expedition started towards Kurrachee, under the engineering charge of Mr. F. C. Webb, Mr. J. E. Woods, Mr. T. Alexander, and Mr. T. Moseley, who superintended the operations in the absence of Sir Charles Bright, who was at Bagdad with the late Colonel E. Stewart, endeavoring to arrange for the completion of the interrupted land line. The end of the cable was successfully landed at Kurrachee on the 12th of May, and the whole of the submarine portion of the operations completed. A second land line has since been completed, from the head of the Persian Gulf, through Persia, to join the Russian telegraph lines near Teflis.—*The London Telegraph.*

PROGRESS OF THE RUSSIAN-AMERICAN TELEGRAPH.

The progress of the work on the American-Russian Telegraph is most satisfactory. The reports of the Superintendent and his party, who have just returned from the summer's work, are very favorable. The route has nearly all been determined. A number of doubtful geographical questions of much importance to the location have been solved. Behring Straits and the sea south of it were sounded, and the shore examined, and both bottom and shore were found well suited for the safety of a submarine cable. New Archangel, St. Michael, St. Paul's, Petropavlovski, and other Russian stations, were visited. The Russian officials everywhere received the expedition with great attention. The Governor of Russian America, who is also Director of the Russian-American Fur Company, a very extensive and influential organization, gave to Colonel Bulkley a circular, instructing his subordinates to give him every assistance that he might want, even to furnishing him with men at his requisition. The Indians and their chiefs on both the American and the Asiatic sides, are in constant trade and on friendly terms with the Russians, and promised to befriend the Americans. When the expedition started from here last summer, it was supposed that the river known as the Kwichpak, on the American coast, opening into

Norton Sound, in latitude 63°, with a delta 120 miles wide, is the same as the stream called the Youcon in the interior.

At Fort St. Michael's, Col. Bulkley met a native who had followed the Youcon down to the mouth of the Kwichpak, and thus settled that question, which was important, since the line will follow the river for some hundreds of miles. The survey and soundings in Behring Straits, about latitude 66°, were made by the steamer Wright; those three degrees further south by the barque Golden Gate. It was ascertained that, in the few places where timber for poles is lacking on the American side, the transportation will not be expensive.

Although information has been obtained that a good route can be made for the line on both sides of the ocean, and although there will probably be little change from the general route already selected, still the final location will not be made until the reports of the exploring parties are received. Of these there are five now in the field, three in Asia and two in America. Major Abasa, who left here in July last, touched at Petropavlovski, where he left some of his party with instructions to examine the peninsula of Kamtschatka to Penjinsk, at the head of the Gulf of Penjinsk. He has gone to Nicolaieffsk with the remainder of his party, and they will start from that place by land to locate the line to Penjinsk, which is the point where he will meet Lieut. McRae, who landed at the mouth of the Anadyr River. After fixing the route between the Anadyr and Penjinsk, Lieut. McRae will explore the country from Anadyr to Plover Bay, in latitude 64° 28' North. This will conclude the examination on the Asiatic side.

On the American side the work is to advance with equal speed. Mr. Kennicott was landed at the mouth of the Kwichpak, with instructions to follow the stream up to Fort Selkirk, and thence turn southward, by way of Peace River, where he will probably meet Major Pope, who has gone northward from Fraser River. Thus the connection will be made. Mr. Kennicott has at his disposal a little steamer of ten tons, which will be able to ascend the Kwichpak at least four hundred miles. In British Columbia, Mr. Conway is at work putting up the poles, and he has completed that part of the work to the extent of eight hundred miles. During last summer, one steamer and four sailing vessels were employed. Next summer they will return with a number of laborers, and a dozen parties will be landed at different points, with instructions to put up the poles with all speed, and it is hoped that in 1867 the line will be completed from New-Westminster, near the mouth of Fraser River, to Nicolaieffsk, near the mouth of the Amoor River, thus completing the telegraphic connection between New-York and London.

The Russian-American Telegraphic enterprise is the rival of the Atlantic cable. One is undertaken chiefly by Americans, the other by Englishmen. The two great Anglo-Saxon nations have engaged in a contest to see which can succeed first in accomplishing one of the greatest triumphs of civilization—which shall first bind the Old World and the New together by the magic wire of the electro-magnetic telegraph. We trust that each will drive its own undertaking ahead with every energy, and whichever wins the game will have the applause of all Christendom.—*Alta California, Dec. 2, 1865.*

WOMEN AS TELEGRAPHERS.

To the Editor of *The New-York Times*:

I AM persuaded that what I have to say in rejoinder to Mr. Stover's letter in *The Times* of Sunday the 10th inst., is significant enough to justify you in printing it. With that hope I go on to answer briefly. Mr. Stover's arguments are in short as follows:

First—Women do not understand business.

Second—They cannot understand it, because they are women.

Third—They do very well in small telegraph stations, but not in large ones.

Fourth—No telegraph superintendents or managers consider women equal, on an average, to men as operators.

Fifth—Messages sent over the wires are of such a nature that womanly women ought not to be cognizant of them.

This series of arguments from so able a thinker as Mr. Stover, I shall grant exhausts his side of the question; and I wish to answer him as well as my inferior business understanding will permit. For I cannot imagine that he reckons me among the unwomanly women he alludes to. He is a gentleman. But to his arguments in their order I reply—

First—It is men's fault if women do not understand business. If men did right, all women would be taught business enough while at school or afterwards, to fit them for managing their own affairs, if necessary, instead of the usual fate of being cheated or neglected by unfaithful trustees or dishonest lawyers and fellow-heirs and owners.

Second—The assertion that womanly women cannot understand business is thoroughly disproved by the fact that many of them do. Indeed, the most delicate, refined, most exquisitely feminine woman of our age—most lovely and most loved—Florence Nightingale—possesses, and has exerted prime business qualities as organizer and administrator, and that to a degree that A. T. Stewart might envy. But further, his assertion is disproved by the well-known and universal business activity of women in France. I do not mean in the field, but as sellers, managing clerks, and book-keepers; in employments requiring exactly the qualities of a good telegraph operator.

Third—Mr. Stover admits that women may do very well in small stations. Now, a very large proportion of telegraph stations are small ones; and thus Mr. Stover, on his own showing, must concede that a very large proportion of operators might properly be women.

Fourth—This point is only to be decided by experience. And, as a matter of fact, the superintendents of my acquaintance are directly opposed to such ideas as Mr. Stover advances, for they find our lady operators at least as competent, faithful, and trustworthy, as gentlemen.

Fifth—If the business messages that pass over the wires are of a nature unfit to be known by women, this must be the fault of the operators; for no honest business is improper; but I am not sure that I know exactly what Mr. Stover means in this place.

Sixth—It is unsafe to argue that business is so dirty that women must not touch it. It is like arguing that politics are so dirty that clergymen must have none. It is a mistake to drive cleanly people away from either. It would be better to help the cleanly people expel the dirt. Business settles itself. If lady telegraphers are incompetent and costly, the shrewd men who own the lines, and their executive forces, will soon find it out and dismiss them. But if they are faithful, safe, and cheap, they will employ them. In fact, the latter is the case, and the number of lady operators is really increasing.

Seventh—There is another consideration, which of itself altogether destroys Mr. Stover's argument, such as it is. Woman's sphere, according to him, is keeping house. Now, exactly the qualities for a good housekeeper are those for a good telegrapher—patience, faithfulness, careful attention to numerous and tiresome little details. If women are not on an average altogether superior to men in those qualities, I am in error.

It is an odd circumstance that all this hurry to close the doors of the National Telegraphic Union was totally gratuitous. Not a lady had asked admission, when so much haste was made to keep them out. It would be no more than fair to argue that these exclusive gentlemen were satisfied that they could not compete with ladies, and therefore wanted to deprive them of the opportunity to excel them.

If ladies desired to become members of the Union, however, I have very high authority for asserting that they would be allowed a fair chance to do so on their

merits, which is all they want; and there is, in fact, a just and kindly feeling toward them in influential quarters on precisely this point.

I cannot help thinking that Mr. Stover's "conclusion" does really contain the substance of his whole argument. That "conclusion" amounts to this and nothing more, "I don't want any lady operators, because I don't." This is what is usually called a woman's reason.

M. E. LEWIS.

THE TELEGRAPH.

An article upon the above-named subject published some time ago in *The Boston Traveller*, says:

Of all the instrumentalities that this generation has forced into its service, the telegraph is, perhaps, the greatest, when we consider its comprehensiveness, the facility with which it can be extended, and the ease with which it can be applied to the common uses of life. Railways are grand things in their line, but many generations must be added to the sum of time before rails can be laid across deserts or over barbarous lands, whereas the wires are already fast stretching across "desert wildernesses," and even savages, who respect nothing else, treat them with forbearance, looking upon them as the works and agents of magicians—as in reality they are. Rails stop at the side of the sea, or even at its arms; but the wires subdue the sea to their will, and convert it to means of accomplishing their purpose. Their victories are not only won over space and time, but over "the mighty waters rolling evermore;" and before the present decade shall have expired, we shall see them conquerors of the Atlantic, the Pacific, and the Indian oceans, and reducing almost to a common-place the sublime declaration, that "seas shall join the empires they divide."

It is not much more than twenty years (May 27, 1844) since the electric telegraph post went into operation, and became a great feat. The two places then connected by the wires were Washington and Baltimore. The first political party that made use of the telegraph was, we believe, the national Democratic convention that nominated Mr. Polk for the Presidency. Since that time it has achieved a series of successes unparalleled in the history of scientific discovery. The wires are taking the world in their embrace. Almost all points of importance are now connected by them, and if they move along somewhat slowly at present, it is because they are engaged in such a contest as no other human agency ever attempted. They are waging war with immense regions that have hardly felt the first warm rays of civilization, with great rivers, and with the ocean and its immediate allies. What they have done, and what they are engaged in doing, promise to bring all places of note into close intimacy with each other in course of half a dozen years. We may be a little too sanguine, but our belief is, that by the close of 1870 the earth will be substantially conquered by the telegraph, and that countries and cities that are tens of thousands of miles apart will then be electrically united, and form one great social and business commonwealth.

The history of the introduction of the telegraph into our great cities, and of the growth of business done by it, would form a very entertaining book. Boston and New-York were connected by telegraph just before the beginning of the Mexican war. It was a line of two wires, and was built by the Hon. F. O. J. Smith, of Maine. The office, which was but a small one, was at the head of Dock Square. There was but one operator. The news first sent over this line related to the Mexican war, giving accounts of the battles of Palo Alto and Resaca de la Palma. A few months later came details of Monterey, then of Buena Vista, and then of the taking of Vera Cruz, and of the long series of victories gained by General Scott. These early details afforded matter for "extras" that were as eagerly purchased as any have been that were called forth by the secession war. War was then new to us—now we are getting hardened to it, and it is an old story. The first great revolutionary news

that we ever received by telegraph was that relating to the overthrow of the Orleans monarchy, in 1848; and for many months thereafter European news was in great demand, owing to the state of things in France, Germany, Italy, Hungary, and other countries. The telegraph kept us well informed as to what was going on, and the dispatches were even voluminous. The first Presidential election with which the telegraph dealt was that of 1848; and though it was then in its infancy, we had, through its aid, sufficient details as to the voting, to enable us to see that Gen. Taylor was chosen, in a few hours after the voting was over. The event of every national election since held, has been known in Boston on the night of election day.

The Russian war, the Indian mutiny, and the Italian war, furnished the telegraph with opportunities to impress its usefulness on nations, governments, and armies, of which it was, in every sense, swift to avail itself. Its labors in the secession war have been gigantic.

Besides the line established between Boston and New-York by Mr. Smith, the so-called Bain Line and the House Printing Line were started. They managed to exist for some years, but did not flourish until they combined their means and powers, and became the present American Company. The increase of business has been immense. Before the outbreak of the secession war, it was a good day's business to send five or six hundred messages; but at present the American Company alone sends six thousand messages daily to New-York, and over its various branches in New-England and the British Provinces.

The American line owns the Nova Scotia and New-Brunswick line, works the submarine line to Newfoundland, and has branches all over New-England. It sends news South, to Washington, and many other leading places. It builds lines for the army. Formerly its wires followed the sea-board to New-Orleans, but this mostly ceased when civil commotions began, and the National capital is now the terminus of its operations to the South. From the beginning of the secession war it transacted a great amount of business for Government and for the State, and has proved a valuable assistant in carrying on military operations. It has also proved a formidable enemy of rogues, and is extensively employed by the police. Those who would see the side of the rogues defended against the telegraph, are referred to Mr. Hawthorne's *House of the Seven Gables*, where Clifford Pyncheon, in an argument with a gimlet-eyed old gentleman, states the case of those outlaws plaintively, but with force, saying, indeed, a great deal more in their behalf than most people will subscribe to.

Improvements are contemplated, by which a merchant seated in a room in Boston can transact business with a merchant seated in the office in New-York. Arrangements are also soon to be made in regard to the payment of drafts, notes, and other demands, by telegraph, which will be a great convenience, and probably come to have as remarkable an effect, when extended, on the world's business as followed from the invention of bills of exchange.

Among other improvements the American Telegraph Company has made arrangements to rebuild the line from this city to Rutland, and to put up a new wire in addition to the one now in use. The same company also propose to build a new line from Brattleboro' and Greenfield, over the Vermont and Massachusetts road to Fitchburg, and also from Fitchburg to Boston, via the Fitchburg and Worcester and Agricultural roads.

The Independent Line of this city has wires running to New-York, Philadelphia, Washington, and other centers of business and politics, to the South and to the great West, and with all parts of Maine and Canada. There is also a line that runs direct to Canada and Vermont. Should the increase of telegraphic business here be as great during the next twenty years as it has been in the (almost) twenty years since the wires began to work

for us, it would require a document as long as an American cabinet minister's report to give an account of what then shall make up the sum total of that business.

The telegraph, though only in its first youth, may be considered as one of the best established institutions in the world. It is one of those things which seem to defy superseding or displacement. A Salem youth, the other day, well remarked, when viewing the operations of the telegraphic machinery, "Go ahead, old fellow!—you are all right—but if you had lived in witchcraft times, you would have been hanged for a wizard!" He was right—and we have no doubt that in those times more than one man was hanged, or burned, or drowned, or lapsed, for having suggested some great improvement, which it far transcended the capacity of his contemporaries to suppose was of human origin, and which, therefore, they charitably attributed to the powers of darkness. Many things that have been done in our age were offered to the people of much earlier ages, but were refused through ignorance and stupidity, those to whom they were tendered stoning the inventors or discoverers, as in yet earlier times yet stupider people had stoned the prophets.

A NATIONAL TELEGRAPH SYSTEM.

BOSTON, Jan. 1, 1866.

To the Editor of *The Newburyport Herald*:

Just previous to the adjournment of Congress for the holidays, on motion of Hon. John B. Alley, representative from your District, it was resolved that the Committee on Post-offices and Post-roads be instructed to inquire into the expediency of establishing a national system of telegraphing, by which all telegrams shall be forwarded under a system similar to our present postal service within the exclusive jurisdiction of the Post-Office Department. As Mr. Alley is the Chairman of this Committee we may reasonably expect, notwithstanding an immense adverse interest, that the matter will be most carefully and thoroughly investigated.

The inauguration of this measure by Mr. Alley—if carried out—will place his name beside that of Ben. Franklin, the originator of our mail service; and no act or acts of his very honorable Congressional career will so result to his credit and future good fame; for the establishment by the Government of a system of telegraphic communication between all important towns and cities in the country could but prove a great national blessing and a great source of revenue.

Interested parties may sneer at Mr. Alley's proposition, and declare, as one New-York paper already has, that the Government could with equal propriety engage in the express business or manufacturing, but such antagonism would just as properly be directed against the performance of the mail service by the Government. If the public were as well and cheaply accommodated by the existing telegraph companies as they should be, perhaps competition or any interference with the business would be unnecessary and uncalled for. Such, however, is not the case. The stock of every telegraph company in the United States has been so watered that in order to pay dividends they are obliged to charge excessive and burdensome rates for the transmission of messages. For example, take the Western Union Telegraph Co., owning more miles of wire than any other company, and we find by a statement of their Directors recently made that the amount of stock issued by them and upon which they have paid dividends amounts to twenty-one millions three hundred and fifty-five thousand one hundred dollars. In their assets they set down their lines, equipments, etc., as amounting in value to twenty-one millions forty thousand and seventy-four dollars and thirty-seven cents.

By what process they are enabled to figure to such a nicety, giving the exact number of cents even, I am unable to tell; but I find by the report of their General Superintendent the number of miles of wire owned by the company is forty-four thousand.

THE TELEGRAPHER.

These figures are undoubtedly much larger than they should be; but allowing them to be correct, in consideration of the fact that very many of their wires are placed on one set of poles, one hundred dollars per mile would be a higher price than any company would be willing to pay for their construction. Forty-four thousand miles of wire then, at one hundred dollars per mile would cost four millions four hundred thousand dollars. The cost of office, equipments, etc., for this company's lines cannot be fairly estimated at much over one million. This gives us the total cost of their property (provided excessive and unreasonable amounts have not been paid), five million four hundred thousand dollars. Any man of ordinary intelligence, can see that it is utterly impossible for this company to serve the public at as low rates as other parties operating lines on a basis of their actual cost.

Let the Government, without interfering with the rights of existing companies, put up the wires, and establish a national system of telegraphing, and the present rates for transmitting dispatches could be reduced two-thirds and then yield a large revenue over and above the cost of working the lines. The reduction of tariff could be safely made at the commencement, and under proper management there can be no doubt that in the course of time the work could be performed so cheaply that the telegraph would almost supersede the mail. Perhaps the most reasonable argument against the carrying out of Mr. Alley's project is that it would become a political machine—but this objection is not insurmountable.

All the influence of the existing telegraph companies will, of course, be exerted to kill Mr. Alley's project in the Committee room, but we hope at least that the measure will be fairly considered and favorably reported on.

TRIMOUNTAIN.

CHRISTMAS PRESENTATION.

THE annexed correspondence speaks for itself. It is alike creditable to all parties concerned. The gift presented was, we learn, a beautiful seal ring of great value. The letter of Mr. O'Brien in accepting the gift is as chaste and appropriate as that of the donors in presenting it:

*AMERICAN TELEGRAPH COMPANY (late U. S.
Military Telegraph), Dep't of North Carolina,*
December 25, 1865.

R. O'BRIEN, Esq., late Chief Operator:

DEAR SIR:—In all ages of the world, and among every people, the manifestations of gratitude for kindness has been regarded as one of the most ennobling attributes of man.

It has been said that "man's inhumanity to man makes countless thousands mourn;" while this fact is indisputable and deplorable, we, sir, also recognize the truth, made more impressive and prominent by your generous conduct to us, that magnanimity to man transfuses radiant hope into many an oppressed bosom, and alleviates the unutterable anguish of many a distressed mind.

You, sir, came among us at the termination of an embittered and sanguinary strife, at the downfall of a cause with which we had been connected; it was in your power to exclude us from employment, or rather a portion of us who were then dependent on you, the exercise of which power would have consigned us to that inactivity conducive of poverty. Had you done so, we could not have justly censured you. But on the contrary, throwing aside all prejudice which might have existed, you gave us immediate employment, and we are happy and proud to say that your course has been marked by a noble equitableness and an impartiality that evokes our warmest and most sincere approbation.

It is our unfeigned desire that you remain among us, but should uncontrollable events call you to duty elsewhere, you will carry with you our fervent wishes for the promotion of every interest that can increase your happiness and augment your prosperity.

And, in conclusion, as a testimonial of our highest esteem, and our profound appreciation of the kind feeling

you have ever evinced for us, we beg of you to accept as a Christmas present the enclosed *souvenir*, hoping that it is emblematical of reciprocal regards, ever without an end and infinite in duration.

With the compliments of the festive season, allow us to remain yours, in kind feeling and friendship,

W. E. DULIN,	W. M. S. TAYLOR,
S. W. WHITAKER,	D. G. RYAN,
LEE ANGEL,	W. HANCOCK,
J. D. POTTS,	ARTHUR DANIEL,
JOHN W. BROWN,	S. A. HOWARD,
N. B. TOPPING,	J. C. DUNCAN,
N. A. LEE,	J. E. SHEPPARD.

RALEIGH, N. C., Christmas morning, Dec. 25.

To the Southern Operators of the late U. S. Military Telegraph Corps, Department North Carolina:

GENTLEMEN:—Through your able representative, Mr. Wm. E. Dulin, I have this moment received your beautiful and valuable gift, which is rendered doubly welcome by the kind and generous sentiments contained in the letter accompanying it. Please accept my most sincere thanks as well for this manifestation of your friendship as for the faithful and efficient manner in which you have one and all performed your duty. You have, under peculiarly trying circumstances, nobly sustained the reputation of our profession for honor and fidelity.

I hope to remain with you and trust our relations in the future will be as pleasant as those of the past.

Wishing you all a merry Christmas, I remain your sincere friend and brother operator.

RICHARD O'BRIEN.

DISTRICT DIRECTORS.

NEW-YORK.—W. Steinhoff, United States Tel. Office.	
BOSTON.—H. W. Wheeler, American	" "
PHILADELPHIA.—Jos. S. Greene, W. U.	" "
BALTIMORE.—J. B. Yeakle, American	" "
WASHINGTON.—T. H. Sherman, American	" "
ST. LOUIS.—Kenneth McKenzie, Pac. R. R.	" "
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MAINE.—C. I. Collamore, American	" "
Bangor.	
ALBANY.—A. L. Whipple, N. Y. C. R. R.	" "
UTICA.—J. B. Sabine, W. U.	" "
ROCHESTER.—J. H. Crane, W. U.	" "
CALIFORNIA.—M. Hodge,	" "
Carson City, Nev.	
NEW-JERSEY.—J. A. Wright, American	" "
Trenton.	
PITTSBURG.—	" "
HARRISBURG.—J. B. Lyndall, W. U.	" "
CINCINNATI.—B. B. Glass, W. U.	" "
St. JOSEPH.—W. H. Woodring, Box 1021.	
OMAHA.—Frank Lehmer,	Tel. Office.
INDIANAPOLIS.—G. W. Babbitt, Bellefontaine Railway	
Telegraph Office.	
TOLEDO.—A. S. Hawkins, U. S. Tel. Office.	

DISTRICT PROCEEDINGS.

INDIANAPOLIS DISTRICT.—Regular meeting of this District was held Monday evening, Dec. 11, 1865, at the Union Depot Office. Called to order by the Director.

Minutes of last meeting approved.

The following-named persons were proposed and unanimously elected members: G. F. Brown and E. C. Howlett, of this city, and Charles Tweed, of Morris, Ind.

Motion made and seconded that in future we live up to rules as regards admission of members. Names of applicants to be proposed at one meeting, committee on qualifications shall make their inquiries thoroughly during the time intervening before the next meeting, at which meeting they shall hand in their report, and admission of such applicants be balloted for, except in cases where applicant is well known, making duties of committee unnecessary, when rules may be set aside and applicant ad-

mitted by acclamation. Messrs. Howard, Bush and Cone appointed Committee on Qualifications.

Report of committee in case of Mr. Davis, who was proposed for membership last meeting, unfavorably received. Mr. Davis blackballed.

E. Parmelee applied by letter for transfer to St. Louis District, of which city he is now a resident. Granted.

Mr. Brewer made a motion that in view of difficulty in getting a quorum together at meetings the fine for non-attendance be raised from twenty-five cents to one dollar. Carried. Adjourned.

Regular meeting held at Bellefontaine Railroad Office, Jan. 8, 1866. Called to order by the Director.

Minutes of last meeting approved.

Treasurer's report for December accepted.

Mr. R. T. G. Carter, of Muncie, Ind., proposed for membership. Referred to Committee on Qualifications. No further business coming before the meeting, adjourned.

LOUISVILLE DISTRICT.—Regular meeting held Jan. 2d, 1866. Called to order by the Director.

Mr. W. M. De Grove proposed Mr. E. Nolan, of Evansville, Ind., as a member of this District. Local Director reporting favorably, he was elected.

Mr. Flanagan, from Committee on Gough Lecture, reported that no definite answer had been received.

Committee on THE TELEGRAPHER reported progress.

On motion, the District Secretary was authorized to publish the call for regular monthly meeting in *The Democrat* the Saturday preceding. On motion, a committee of two was appointed to ascertain the cost of a cut of the N. T. U. badge to head our advertisement. On motion adjourned.

ALBANY DISTRICT.—Regular meeting convened at 9 P. M., Jan. 3d, 1866. The Director in the chair. Thirty-one members present.

The Director, in announcing the death of George W. Ford, a member of this District, said:

"In the demise of our late brother, George Washington Ford, who departed this life, in the city of Montreal, this Wednesday morning, Jan. 3d, 1866, of disease contracted in the performance of special duties for his employers, the Union loses one of its best members, his company a faithful and efficient servant, and last, but not least, his bereaved parents lose a kind and affectionate son. To them we tender our most sincere and heartfelt sympathy in this their hour of affliction, trusting, with childlike confidence, that 'He who doeth all things well' will so dispense the light as to enable them and us in truth and humility to say, 'Not my will, but thine, O God, be done.' To those kind friends and brother operators who cared for him during his brief illness, and smoothed his dying pillow, we owe a debt of gratitude which I trust we may never be called upon to pay in kind, but the consciousness of having performed a duty towards a member of the craft we feel to be better thanks than any we can offer them."

On motion, the above remarks were unanimously adopted as the sentiment of the District, and a copy ordered to be sent to the family of deceased, and a copy to THE TELEGRAPHER.

On motion, Messrs. Whipple, Rice, and Waterbury appointed to represent the District at the funeral.

M. H. Warner, of United States Company's West Troy Office, unanimously elected member of this District.

Letter read from P. B. Delany stating that he would like to continue in the Albany District. So ordered.

CHICAGO DISTRICT.—Meeting called to order 9.15 P. M., Jan. 3d. Director in the chair.

Minutes of last meeting approved.

Reading of the Treasurer's report dispensed with.

Messrs. James B. Adams, of Burlington, and B. T. Cogger were proposed for membership, and a committee appointed to inquire into their standing and abilities, and report at next meeting.

Mr. Kelsey, the committee in Mr. Finlay's case, asked further time. Granted.

Mr. York's resolution in regard to Mr. Porter was adopted.

Letters were read from the Albany District expressing thanks for courtesies shown their delegates, which was ordered placed on file. Adjourned 10 P. M.

BALTIMORE DISTRICT.—Regular meeting called to order at 8 P. M., Jan. 6, 1866. Twenty-four members present.

Minutes of last meeting approved.

Messrs. W. J. Bodell, James McColgan, and James Riley were elected members of this District.

On motion, the Ball Committee was discharged and the whole matter dropped.

Committee on Rules made a report, which was accepted, and also presented a set of rules for the government of the room which, after considerable discussion and the introduction of several amendments, were adopted, but afterward the vote was reconsidered, and the Committee given further time to revise their work.

Messrs. Ways and Showacre notified the District that at the next meeting they will offer amendments to the By-Laws.

The Director read the names of members now more than six months in arrears, and stated that they should be dealt with according to provisions made in the Constitution.

Mr. Kerner offered the following resolution, which was accepted, and the Secretary was ordered to forward a copy to Mr. Rogers and to THE TELEGRAPHER:

"Resolved, That the thanks of this District are due and are hereby tendered to Captain H. J. Rogers for an autograph letter of Prof. S. F. B. Morse, presented to the District; and also for the general interest he has taken in the affairs of the 'N. T. U.'"

On motion, a special tax of fifteen cents was imposed on each resident member.

Mr. Crumbacker presented a copy of a work on telegraphy to the District. Adjourned.

MAINE DISTRICT.—Regular meeting was called to order by the Director at 8 o'clock P. M., Jan. 6, 1866.

The application of Otis G. Turner, of Augusta, was laid before the meeting, and he was unanimously elected.

There being no further business the meeting adjourned.

WASHINGTON DISTRICT.—There not being a quorum present Saturday, Dec. 2d, 1865, no meeting was held.

Regular meeting Saturday, Jan. 6, 1866. Called to order 8.30 P. M. Fourteen members present.

The Director gave notice that Messrs. T. E. Maddox and J. F. Hahn had been transferred from Baltimore to this District, also that the following letter had just been received:

"PRESIDENT'S OFFICE, NAT. TEL. UNION,
St. Louis, Dec. 24, 1865."

"THOMAS H. SHERMAN, District Director, Washington,
D. C.:

"SIR:—In reference to the resolution passed by the Washington District, Nov. 4th, as to the necessity of members who, leaving the profession of telegraphing, remove to points nearer other Districts, becoming members of such other Districts; it has been decided by the Executive Committee that such members *should* join themselves to the nearest District.

"Yours very respectfully,

"C. W. HAMMOND, Pres. N. T. U. and
"Chairman Ex. Com."

A package of photographs of some of the most prominent gentlemen associated with the working of the telegraph, was received from Mr. John Horn, Jr., of American Telegraph Company, New-York, and the thanks of the District tendered him. Adjourned.

DETROIT DISTRICT.—Regular meeting of this District was held Dec. 3d, 1865.

James Allen, Ed. Botsford and A. N. Oldfield were elected members, and at the regular meeting held Jan. 7, 1866, Mr. J. W. Bromley was elected a member.

ST. JOSEPH DISTRICT.—The regular meeting held Jan.

7th. Meeting called to order at 3 P. M., Director in the chair.

Minutes of last meeting approved.

Mr. Joyce, of Fort Leavenworth, was ordered to send the certificate of membership of E. McMurtrie to the District Secretary to await the decision of the Executive Committee in his case.

The Director was authorized to purchase twenty-five copies of the New-York District By-Laws for distribution.

Owing to illness the District Treasurer was obliged to postpone his quarterly report until next meeting.

After a spicy debate of considerable length on the case of Mr. McMurtrie, Mr. McDill offered the following:

"Resolved, That each member of this District constitute himself a subscriber to THE TELEGRAPHER, and pledge himself to continue the subscription so long as he remains a member of the Union."

Carried unanimously. Adjourned.

WASHINGTON DISTRICT.—Special meeting, Saturday, Jan. 20. The rules were suspended, and the following operators proposed and elected: Mr. C. G. Demoll, U. S. Tel. Co., Georgetown, D. C., and Mr. R. H. Ryan, U. S. Tel. Co., Alexandria, Va.

Mr. Berry, from Committee on the "Ball," submitted a detailed report, giving financial result, etc. The entertainment proves to have been entirely successful in every particular.

The report says: "Too much praise cannot be awarded to Horatio Bates, Cashier U. S. Telegraph Office, who so kindly volunteered his services, and took sole charge of the entertainment."

Mr. Young explained the reasons why he had transferred the Chairmanship of the "Ball Committee" from himself to Mr. Berry, and offered the following, which was unanimously adopted:

"Resolved, That the thanks of this District are due and are hereby tendered to H. B. Berry, Chairman and Treasurer of the Committee on the Ball, and through him to the members composing the committee, for the able, efficient and successful manner in which their several duties were performed."

On motion of Mr. Atwater, it was agreed that all applications for membership in this District shall be made in writing, accompanied with names of parties vouching for them, which names shall be entered on the books for future reference.

The Director announced the amendment to District By-Laws making local dues of resident members twenty-five cents per month, having received fifty votes in the affirmative, a sufficient number to adopt, would take effect February 1st.

Mr. Young gave notice of an amendment to the District By-Laws to be offered by him at the next meeting, diminishing the number required for a quorum to ten members. Adjourned.

A MAGNETIC bank lock has been recently invented by a man named Sargeant. It is without key or key-hole, and in itself one of the mechanical curiosities of the age.

MR. TAL. B. SCHAFFNER, who has recently, for his own information and gratification, made an excursion through several of the Southern States, gives, in a communication to President Johnson, the results of his observation, which agree in all material respects with General Grant's statement regarding the condition of affairs in that region. Mr. Shaffner considers the General's descriptions as presenting a very correct exposition of matters there.

THE Western Union Telegraph Office at Lockport, N. Y., was destroyed by fire a short time since.

WATCHED.—Mr. John F. Wallick, Division Superintendent of the Western Union Telegraph Company, was presented on New-Year's night, by Mr. Richard C. Duncan, on behalf of the operators and attachés of his division, with an elegant gold watch and chain. Mr. Duncan made a short, pithy, and appropriate speech, to which Mr. Wal-

lick responded, tendering many thanks, which were afterward evinced in a more substantial manner by adjourning to Rhodius', and there partaking of a supper, the elegance of which was characteristic of the establishment. The watch came from McLene & Herron's, and the manner in which the inscription thereon was executed did honor to the artist. Mr. Wallick is one of the pioneers of the telegraph, and a gentleman in every way worthy of the regard shown him on this occasion.

Toasts and their responses were profuse, and at eleven P. M. all adjourned to their homes, feeling gratified that it passed off so elegantly, appreciating that "it is more blessed to give than to receive," and that

"To bless is to be blessed."

—Indianapolis Herald.

PATENT CLAIMS.—51,729.—ELECTRO-MAGNET FOR OIL-WELLS.—Millis Knickerbocker, New-Lenox, Ill.:

I claim the combination with an electro-magnet, having its legs protected by any suitable covering, of the grab-irons *n*, *n*, the whole being constructed, arranged, and operated substantially in the manner described and for the purpose specified.

51,905.—ELECTRO-BALLISTIC CHRONOGRAPH.—Paul Le Bouleengie, Antwerp, Belgium, assignor to Fritz Meert, New-York City:

I claim, 1st, The use of a body falling free and without friction for the measure of time, substantially in the manner herein set forth.

2d, The arrangement of piles and circuits to obtain a simultaneous interruption without mechanical aid, as set forth.

3d, Regulating the action of the electro-magnets on their armature, by means of inverse circuits, and by the substitution of steel for soft iron (*fer doux*), as set forth.

51,934.—TELEGRAPH INSULATOR.—A. B. Ely, Boston, Mass.:

First, I claim the hard-rubber or gutta-percha cap, having its lower edge in the form of a head and terminating in a flange or disc bent inward toward the hook, substantially as and for the purpose described.

Second, The combination of two caps with the hook, substantially in the manner and for the purpose described.

51,935.—INSULATING TELEGRAPH WIRES.—A. B. Ely, Boston, Mass.:

First, I claim insulating telegraphic wires, or their supports, with the material, applied in the manner substantially as and for the purposes set forth.

Second, the new article of manufacture herein described, constituting an insulated wire, made substantially as described for the purposes set forth.

51,948.—ELECTRICAL BATH-TUB.—Jerome Kidder, New-York City:

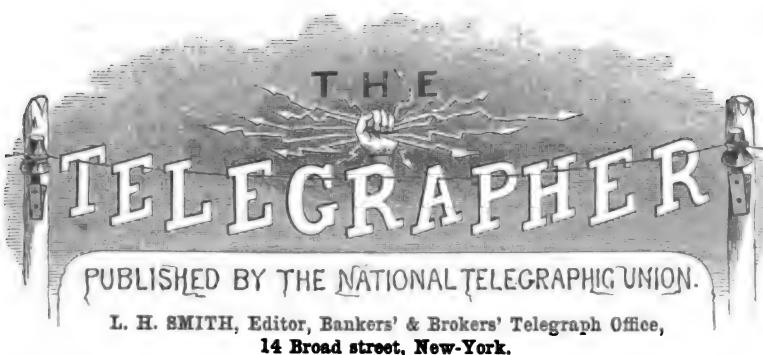
I claim the employment or use of the buoyant electrode, *J*, in connection with the sliding one, *G*, arranged as applied to a bath in the manner shown or in any equivalent way for the purpose specified.

I further claim the attaching of the sliding electrode, *G*, to the conducting wire, *a*, inclosed within a non-conducting elastic tube, *F*, which is fitted around pulleys, *D* *E*, connected with the bath as shown for the purpose of enabling said electrode to be moved, substantially as set forth.

52,054.—INDUCTION COIL.—Jerome Kidder, New-York City:

First, I claim arranging the fine insulated wire which composes the helix or helices used upon a magnet for obtaining an induced current or currents, either wholly or in greater quantity, at or near the center of the length of the magnet, or what is termed its neutral portion in combination with the arrangement of the inner or primary coil, *S*, and its core of soft iron, *G*, substantially as and for the purpose specified.

Second, Making the said helix or helices adjustable upon the magnet between the poles and the so-called neutral portion thereof, for the purpose of varying the power of the induced current or currents, substantially as described.



THURSDAY, FEBRUARY 1, 1866.

ODD.

It might seem to the uninitiated an odd way to support a journal by sending contributions, which ought correctly to be sent to the one which devotes its attention to the subject under consideration, to a journal which does not make a specialty of the subject matter.

It is better, in the opinion of many, to write to a large daily or weekly paper for the thousands to misunderstand, than to send their contributions to a journal devoted to the subject, and which is read by people who will readily understand and appreciate the subject under discussion or written upon.

THE TELEGRAPHER has repeatedly been laughed at and sneered at by a few, for copying from other papers articles, which it would seem ought first to appear in its columns, and be copied thence by the press at large. These facts are to be greatly regretted, but the fault is not ours. This paper was started for the simple purpose of distributing certain associate information among certain persons.

As several telegraphic periodicals had expired after a brief existence (we will not be satirical and say illness) no one had the hardihood to even suggest a paper devoted to telegraphic matters.

We were therefore agreeably surprised at the greedy manner with which this little paper was first, and has since been bought up by the fraternity. It was an enterprise originally to meet a necessity, but has proved itself invaluable to the many thousands who read it, and we can truthfully say that our epistolary intercourse with our correspondents and subscribers has been, with but one single exception, one of the most happy of our life.

If there is such a lack of enterprise in its conduct, as some seem over-anxious to insist, it arises not from disinclination on the part of its conductors, for its limited revenue must be considered. This alone prevents much expenditure for original articles and fast time on the latest information. This enterprise was entirely experimental, and undertaken with very grave and serious doubts of an existence beyond a few months.

The time bestowed upon it was given gratuitously, and of course under these circumstances but a small portion of each day could be devoted to its interests. Added to this lack of time we were haunted with the nightmare of failure—without actual cause—which forced us to a rigid economy. Supplies necessary to stock a new enterprise were needed and must be obtained. This at times drew heavily on its finances, but all these troubles are happily past. We had hoped, and still hope, this year to present many original contributions from scientific men, but thus far we have met with ill success. The general reply is: "We should be happy to, but we are really too busy now to do so." Money seems no inducement to these men of learning and talent.

There are others of whom we have just cause of complaint. Those who have a theory or discovery, a suggestion or complaint, or some item of great interest, and send the same to some daily or weekly instead of THE TELEGRAPHER for publication, leaving the obligation ours to print it second hand. This has often occurred and still continues, while we are powerless to prevent it. If we are to believe all the flattering letters which come to us, there is no cause for this desertion.

Two cases have recently occurred without a shadow of reason in either, for each of these persons knew well that anything they might pen any way affecting our craft would receive respectful attention at our hands. Our surprise is tempered with pity.

We trust hereafter that any one who knows of the existence of the THE TELEGRAPHER, will not forget that its columns are devoted to telegraphers and telegraphy, and are the first and proper place for any articles upon such subjects to appear.

TELEGRAPHIC MISCELLANEA.

We are informed that messages coming long distances are often delayed at the receiving station, because the amount paid or to be collected is wrong, and it has been suggested, by Mr. Kinney Smith, we believe—with some show of reason—that all messages be sent through simply as *paid* or *collect*, the full amount to be attached at the receiving office. This course would insure more correct rates, and the exercise of more care by receiving clerks. Our experience leads us to believe that the greatest delay occurs by wrong counting. This might easily be obviated by the exercise of more care in counting messages, both by receiving clerks and operators. The great difficulty, however, lies in the different counting of the very many compound words. A convention, the proceedings of which we would gladly publish, could soon agree upon a systematic mode.

We learn from *The Quebec Chronicle* that "the chess community of that city and Montreal are under great obligations to the Montreal Telegraph Company, and take this opportunity of acknowledging the courtesy of Mr. Cassells, the manager there, and the attention and skill of Mr. Barclay, the operator at Quebec, throughout the match, which took place on the nights of the 9th, 11th, 13th, 15th, 17th, and 21st Nov. last."

A MASONIC dignitary of great eminence in the order, lately left Edinburg to attend a celebration of the laying of a corner-stone, forgetting his cocked hat. He discovered his omission presently, and telegraphed from the first station as follows: "Send my cocked hat by express to-morrow." His disgust may be imagined on receiving the next day a parcel containing cooked ham, on account of the operator having made a mistake in two of the letters of his message.

We are requested to state that Mr. Gamewell of the Fire Alarm Telegraph was not, as stated in our issue of the 2d ult., all, or even half the time during the war, an inmate of an insane asylum. Also, that the disagreement between Messrs. Gamewell and Kennard & Co., has been amicably settled, and everything is now going on swimmingly. The latter firm have about completed their contract in Cincinnati. The Fire Alarm in that city is the largest—the one in Chicago excepted—in the United States. They are now engaged upon one for the city of Buffalo.

We return a merry Christmas and a happy New-Year to our informant.

We are often applied to by letter by operators in the country for situations in this city. We wish to distinctly state there is but one proper way for them to get employment, and this is to come here and give the managers and chief operators of the several lines a specimen of their work.

We are also applied to to advertise certain persons as wanting situations. We do this gratis for members of the Union, but the notice must come through their District Directors to prove its validity. Others desiring to advertise, must remit in advance our rates for such notices.

INFORMATION comes to us from a reliable source that the Ill. and Miss. Company obliges the operators in its Chicago office to work from 8 A. M. till from 10 P. M. to 3 A. M., alternating from 10 P. M. till 6 A. M. This is a little ahead of anything we have ever heard, and does not reflect credit upon the management. We advise all those operators afflicted with the oppressive "tricks" to emigrate to this city, where we generally work from 8 A. M. to 5 P. M., and alternate weeks from 5 P. M. to the closing hour, which is any time between midnight and daylight, more frequently the former than the latter, which we may state is, excepting during war times, seldom.

The New-Orleans Picayune notices very approvingly the tests of Dr. Everett, of that city, of a new telegraph he has invented. No electricity is used, no insulators, no batteries or chemicals, and no poles. The apparatus is very simple indeed, and its working very easy. The alphabet is based on scientific principles and is easily learned.

A TELEGRAPHIC FEAT.—A few evenings since, one of the most difficult feats ever known to telegraph operators was performed at the Washington office of the American Telegraph Co., by Mr. Findlay. He received the Associated Press dispatch from this city over two different wires at the same time without breaking—listening to the sound of two instruments and writing out the messages one with the left and the other with his right hand. To those conversant with telegraphing, the difficulty of this performance is well known.

This is about the greatest story we ever read, and we simply don't believe it.

A PNEUMATIC DISPATCH IN BERLIN.—A pneumatic communication has just been set up between the Bourse and the central telegraph office at Berlin. Between the two there have been placed two parallel iron pipes 2835 feet in length and 3½ inches in diameter. By one of them, telegraphic dispatches deposited at the Bourse are carried to the central office, and by the other the reverse takes place in the space of from one minute to a minute and a half.

GENEROUS TESTIMONIAL.—The telegraphers connected with the Western Union office in Albany, on New-Year's day presented Mr. S. E. Mayo, Superintendent, with a magnificent royal octavo volume of the "Heroes of the War." The occasion called out some happy remarks from both receiver and donors. No more worthy, industrious or accommodating gentleman can be found the whole length of the line than the popular Superintendent of affairs at the Albany office.

Telegraphing in Bad Weather.

MESSRS. EDITORS:—I would like to make an inquiry or two through your valuable paper in reference to circumstances of every day occurrence on telegraph lines. Every operator must have observed that on rainy days offices near the middle of the line, with main battery at each end, have a great deal of trouble to "adjust" high enough to get offices at extremities of the line, and still be low enough for offices near the center of the line. In other words, the current of electricity seems to be more powerful at the ends of the line. Now can this be so while we both are supplied from the ends of the line? And why is it that on such days magnets that ordinarily work well, when adjusted for offices near by (adjusted low), will not work at all from extremities, but appear to be fixed.

As these are questions that must occur to every inexperienced operator, I would respectfully request a reply through your paper, which might call out other ideas of interest.

TELEGRAPH OPERATOR.

IONIA, Mich., June 14, 1865.

[The difficulty of telegraphing in bad weather results from extraneous currents which prevent a complete discharge of the magnetism on the breaking of the circuit. This makes it necessary to increase the tension of the spring in order to draw the armature away from the magnet, and then to enable the magnet to overcome this increased tension, it is necessary to set the armature nearer to it, making a shorter vibration; this is called adjusting "fine" or "high." The generating of extraneous currents in damp weather is involved in mystery, but it seems reasonable that the nearer to the magnet the circuit is broken, the less would the influence of these currents be felt.—*Eds. Scientific American.*]

We presume these "extraneous currents" are new to most telegraphers. After an experience of a short lifetime in telegraphy, we had come to the conclusion that escapes are the cause of hard-working of lines in bad weather, and if our memory does not cheat us, the armature is adjusted *away* from the magnet at such times, which of course allows the tension of the adjusting spring to be decreased.

In reply to "Telegraph Operator" we wish to say that if he will stick his head under the falls of Niagara he will be more likely to get a stronger current than if he tries at the mouth of the river. The reason is obvious.—*Ed.*

• • •

HUMORS OF THE TELEGRAPH.—A lady operator who had just taken upon herself the duties and responsibilities of a telegraph office, having had but little practice, was very easily disturbed when receiving. In the midst of a message, she was one day accosted by two men from the country, who asked numerous questions about the "wonderful machine" before them. She looked up and said very pleasantly, "Please wait. I can't talk," meaning she could not both talk and receive at the same time. They looked at each other, and at her "wonderingly," and at last one recovered from his astonishment enough to say, "What ails the critter? She says she can't talk, but she said that plain enough!"

A THOUSAND DOLLARS REWARD.—A Canadian friend of THE TELEGRAPHER offers the above reward to any one who will decipher the following specimen of Commercial College telegraphy and the present Morse Alphabet on paper, without looking at the translation:

ORIGINAL.

D. ———, V. Hawt V. And.
Diy ov wtt ty pose td athal aec 8ri wee8 du.

Pg. ———.

10 H. S. 2000.

TRANSLATION.

To ———, St. Paul st., A.

Do you want any more peas and what are they worth?
Sig. ———

10 Ha. 25.

THE office of the American Telegraph Company, formerly located corner of Pearl and Beaver sts., has been removed to 134 Pearl st. The new office is quite nice and commodious and with new facilities for business. We form new resolutions, as follows:

1st. No message shall be sent on a wire which is open. Penalty—Promotion.

2d. No key shall be shut that is already closed, even though commanded by a man fifteen years of age. Penalty—Higher Salary.

3d. No thanks given when any person shall resurrect the electric current from the "ground" for our benefit, after having kept business waiting an unlimited time.

4th. Not to tell which side of us difficulties are on wires which terminate in our office. Penalty—A local circuit for testing.

5th. Matches furnished gratuitously to resuscitate segars which shall kindly be allowed to expire in our office.

6th. An appropriate place found for any hat that shall wander into our office, saving its owner the humiliation of becoming a hat stand. Penalty—A Derby of the most approved style.

These resolutions apply only to telegraphers, and any delinquency on the part of our office to fulfill them, if reported, shall meet with prompt attention.

M. E. LEWIS, Chair "woman."

A. A. SMITH, Recording Secretary.

F. S. TURNER, Treasurer.

THE United States Company has extended its line to and opened an office in Brooklyn, L. I. This company is exhibiting an enterprising spirit which is truly admirable.

THE American Company is now working its printing wires between this city and Philadelphia and Boston with a battery at the transmitting end and a ground at the other. On the Boston wire a repeater is used at Springfield with good success. We confidently expect, after the patents expire, the printing instruments will be used almost universally on all the through wires, which are now burdened with a vast accumulation of business.

WHAT is the most powerful natural magnet? A pretty woman.

NEARLY all the Northern operators who were sent to take charge of the Southern lines by the military authorities are now, since the transfer of the lines to the former owners, being sent North, their places being supplied by Southern operators.

THE Director of the Baltimore District desires the address of J. F. Morrison, late of the B. & O. R. R. line.

WE are truly gratified with the large number of subscriptions which are now being sent us from the South.

CHANGES, ETC.—Wm. A. Schutt, for some time employed at the Burden Iron Works, Troy, N. Y., has resigned his position and accepted one in the Western Union Company's Albany Office.

T. P. Nightingale has charge of the Western Union Company's Office in the State Capitol at Albany during the session of the Legislature.

W. S. Pierson, of Olney, Ill., relieved C. D. Irvin of the charge of the W. U. Company's Mattoon, Ill., Office, the latter gentleman taking charge of the Richmond, Ind., Office.

C. S. Farnham, of the Ill. Central line at Centralia, Ill., relieved J. S. Kerby of the charge of the W. U. Company's Office at Richmond, Ind., the last-named gentleman being in the employ of the United States Company, and was, when we last heard from him, at Zanesville, O. He is a bird of passage.

O. B. Wood has resigned his position with the M. C. R. R. at Chicago, and takes charge of the W. U. Company's Albion, Mich., Office.

M. C. Laven resigned his position with the W. U. Company in this city, and is now with the American Company, Boston.

R. M. Mattocks, who was drafted in Newark, N. J.,

about a year ago, has returned from Hilton Head, where he was chief operator of the Department. His regiment is mustered out. He has taken charge of the Bankers' and Brokers' Company's Hanover street Office, this city.

Mr. George A. Hamilton, late Director of the Pittsburg District and Manager of the U. S. Company's Pittsburg Office, has resigned those positions and taken the Franklin, Pa., Office, same Company. Mr. Gilson, District Secretary, is Acting Director until another is elected.

INFORMATION WANTED of the whereabouts of Ed. O. Brown, a telegrapher, who was, when last heard from, Major and Senior A. D. C. to General Hartshuff, at Knoxville, Tenn. Mr. C. D. Irvin, of Richmond, Ind., will thank any one for the above information.

IN the Senate of the New-York Legislature, on the 18th ult., Mr. E. Cornell introduced a resolution authorizing the Western Union Telegraph Company to issue one million and a half of guaranteed bonds to retire the bonds issued for the purchase of the California line, and in the Assembly the same day Mr. Selden introduced one to confirm certain proceedings of the Directors of the same Company.

THE Franklin Company, of which John W. Lane, Esq., is President, has completed its line from this city to Boston, and opened for business on the 16th ult., at reduced rates, which have been put down to the before-the-war prices. This line connects in this city with the Bankers' and Brokers' lines to Washington. The last-named Company has just completed two new wires from this city to Philadelphia, which gives them four wires between the first two cities in the United States.

THE United States, American, Western Union, Franklin and Bankers' and Brokers' Companies have opened offices in the new Stock Exchange in this city.

OUR lady correspondent who asks: "If this is thus, whence is thus this?" is respectfully informed that thus is this because this is thus. For further particulars please call upon the editor out of business hours.

WE ARE UNDER obligations to the following-named persons for favors shown: To Mrs. M. E. Lewis, for a complimentary ticket to a Parlor Entertainment of the Prescott Literary Association, given at the residence of Miss Marshal, in Brooklyn, on the 22d ult. To Mr. C. C. Yeakle, for cards to his wedding reception held in Philadelphia on the 22d and 23d ult. To John C. Stewart, Esq., President of the Invincibles, for a complimentary to the Fifteenth Soiree Dansante held in this city on the 29th ult. To Mr. D. R. Downer, for wedding cards; also cards to the reception, to be held on the 15th inst. To Morris M. Joyce, of Fort Leavenworth, Kansas, for back numbers of THE TELEGRAPHER.

• • •

MARRIED.

In Kalamazoo, Mich., Dec. 5, 1865, at the residence of the bride's father, by the Rev. Job Pierson, Mr. O. B. Wood, of Albion, Mich., to Miss Sarah C. McCain, of the former place.

In Gainesville, Ala., on Nov. 4th, 1865, at the residence of the bride's father, by the Rev. Mr. Howard, Mr. George W. Strode, of Memphis, Tenn., to Miss Mary P., daughter of Dr. R. F. Sturt.

In Sumpter county, Ala., on Dec. 7th, 1865, at the residence of the bride's father, by the Rev. Dr. Edmunds, Mr. J. N. Lister, of Cahaba, Ala., to Miss Ella Coates.

In Thompsonsontown, Pa., on the 22d Jan., at the residence of the bride's mother, W. K. Applebaugh to Miss Jennie James.

In Keene, N. H., Jan. 10th, 1866, by the Rev. Dr. Barstow, Mr. D. R. Calef, Superintendent Rutland and Boston District American Telegraph Company's lines, to Miss Mary M. Barker, all of Keene.

In Philadelphia, Pa., Jan. 15th, by the Rev. John A. McKean, Mr. C. C. Yeakle, of the American Company's Office, to Miss Sallie A. Vogt, all of Philadelphia.

In this city, on the 30th ult., at the Sixteenth street Baptist Church, Mr. D. R. Fowner, of Jersey City, N. J., to Miss Addie M. Tiffany, of this city.

• • •

DIED.

At Northumberland, Pa., on the 15th ult., B. F. Thompson, operator in the American Company's service, aged about 28 years.

At Roxbury, Mass., Jan. 20, 1866, Annie, wife of Mr. H. W. Wheeler, Director of the Boston District.

The heartfelt sympathy of the Boston District is with Mr. Wheeler in his sad and terrible affliction.

X. Y. Z.

SONNET TO THE WIRE.

BY "A. M."

Hap'st thou a heart, O wire,
Like those that mortals own—
A heart true strung like a tuneful lyre,
Feeling when beats thy pulse of fire
The grief or joy made known
By the rapid click of thy brazen tongue,
To rich and poor, to old and young,
What thoughts couldst thou inspire!
Whispering low in the poet's ear,
Of saddened looks which thy message meets,
Of hurrying steps on the busy streets,
Of the happy face that always greets
A message of love or cheer.

AMERICAN HOUSE, Boston, Jan. 3, 1866.

"Gold is Best Conductor."

My lady, who her love had sold,
Requested a reason to be told,
Saying, why wedding-rings were made of gold.
Lo! I ventured thus to instruct her:
Even love and lightning are the same,
Why, on earth they glance, though from heaven came,
I, and love's the soul's electric flame—
Sure, and gold is best conductor.

January, 1866.

NIPPERS.

DEEP-SEA SOUNDINGS.

MONS. HEDOUIN proposes to use as a sounding-line a small telegraphic cable of two wires, connected with the poles of a voltaic battery, and so arranged that the lead on touching bottom shall make a metallic connection which will give a signal. Very ingenious; but we don't believe that the accuracy will be equal to that attainable by the sounding instrument invented by Captain Ericsson thirty years ago, which consists of a glass vessel full of water, having at its mouth a small vessel of mercury, which is forced into the water vessel in proportion as the water is compressed, and remains there to show the diminution of the volume of the water, from which the pressure, and thereby the depth, may be computed. The difficulty of hauling up a sounding line has hitherto been an objection to the use of this instrument, or any instrument that is to be recovered; but the operations of the Great Eastern, in picking up the cable, show that with proper apparatus the sounding-line and instrument may be hauled up with sufficient facility to make it economical to take soundings in this way. A steel wire rope, varying in diameter in proportion to the strain it will have to bear, and a proper winding apparatus, will probably be found practicable; and the indications by this instrument will probably be more reliable than any measurement that can be made, unless we know that there are no undercurrents.

Many years ago an English naval officer proposed to sink percussion shells which would explode on touching the bottom, and the depth would be computed by the time that elapsed before the sound would be heard. At what depth this method would be practical he did not show.

The Case of F. O. J. Smith.

BOSTON, Jan. 5, 1866.

THE Supreme Judicial Court of the Commonwealth, by indictment against Francis O. J. Smith:—The defendant was indicted for willfully and corruptly procuring one Charles C. Northrup to commit the crime of perjury. The jury returned a verdict of guilty; but to certain of the instructions of the court below the defendant took exceptions. The exceptions were fully argued, and the Supreme Court has now overruled them and affirmed the rulings and verdict given in the lower court.

Correspondence.

BALTIMORE, Jan. 3, 1866.

TO THE EDITOR OF THE TELEGRAPHER:

THE telegraphic fraternity of this city had a most delightful reunion on New-Year's day. Captain H. J. Rogers, Superintendent of the Bankers' and Brokers' lines, extended a general invitation to the operators of all the different companies in the city, which was as generally accepted—every operator in Baltimore being present excepting those on duty.

The reception was a complete surprise, for when the "manipulators" assembled, they were ushered into the parlor, where a magnificent repast was spread out. The operators did ample justice to the viands, etc., and many appropriate toasts were drank.

Captain Rogers kindly presented each operator of the Bankers' and Brokers' Office with an autographic letter of Prof. S. F. B. Morse, written at the time when telegraphy was in its infancy and the line between Baltimore and Washington was first put in operation. He also presented one to the Baltimore District of the N. T. U.

Captain Rogers has preserved some telegraphic register papers, whereon are written some of the first messages that were transmitted over the line, which he exhibited. These were indeed a great curiosity, showing the immense improvement in the art.

These messages were transmitted at the rate of five or six words per minute, which was considered a great feat in those days. The magnets then used weighed about eighty pounds.

The utmost good feeling exists in this department among the operators of the rival lines, which is, in great part, due to the National Telegraphic Union.

MONUMENTAL.

TO THE EDITOR OF THE TELEGRAPHER:

YOUR remarks in No. 18 of THE TELEGRAPHER on the subject of a new alphabet reflect the sentiments of a large portion of the dot and line fraternity. I hope you will continue to agitate until "spaced letters" are voted obsolete.

I submit the following alphabet for consideration. The Morse characters are adhered to as far as practicable. The spaced letters c, o, r, y, z and & are formed by introducing a dash (—) in place of the space now used. This transformation is systematic, and the change from the old to the new would therefore be easy. Throughout the whole the "printer's rule" is kept in view. W.

a . .	j . .	s . .
b . . .	k . .	t —
c . . .	l . .	u . .
d . . .	m . .	v . . .
e .	n . .	w . . .
f . . .	o . .	x . . .
g . . .	p . . .	y . . .
h . . .	q . . .	z . . .
i ..	r . .	& . . .

1	7	?
2	8	!
8	9	;
4	0	"
5 . . . .	. . . . .	¶ . . . .
6	,	—

KANSAS CITY, Mo., Jan. 6, 1866.

TO THE EDITOR OF THE TELEGRAPHER:

HAPPENING to be in St. Louis on New-Year's, I was a willing spectator to the presentation of a magnificent gold chain to Mr. Wm. Stoneback, chief operator of the W. U. Co's lines at that place, by the operators, and at their request I report it to you for publication.

The performance took place at the office, and the presentation was made by Mr. H. E. Losey in the following neat little speech:

"MR. STONEBACK—On behalf of the gentlemen present and myself, I beg to hand you this little gift, but in doing

so I feel necessitated to say that it is but a small memento of the very high regard in which our chief operator is held. We all wish you a happy New-Year."

Mr. Stoneback, in reply, said: "Gentlemen, I thank you; but allow me to say, frankly, that I am opposed on principle to receiving presents. You are doubtless aware that many men, after making presents of this kind, think they are entitled to more favors than before, and that they have in a measure placed the receiver under obligations to them. I trust there are none such here, and in accepting this truly handsome gift, I do it simply as a mark of your esteem for me."

St. JOE.

THE COLLINS TELEGRAPH ROUTE.

IMPORTANT ORDER RESPECTING OVERLAND COMMUNICATION BETWEEN KIAKHTA AND TIEN-TSIN.

[St. Petersburg (Dec. 28) telegram to London Press.]

The following official notice with respect to increased facilities of overland postal and parcels communication with China has just been published by the Russian Post-Office:

In consequence of information received from the Governor General of Eastern Siberia, the postal department has to inform the public that postal communication was opened on the 5th of last October between Kiakhta and Tien-tsin, by way of Ourga, Kalgane and Pekin. Single letters, or letters containing enclosures of money or documents, as also parcels and telegraphic dispatches, are forwarded four times a month both ways, at the under-mentioned dates:

In the direction of Kiakhta to Pekin—From Kiakhta, the 5th, 12th, 19th, 27th; from Ourga, the 7th, 14th, 21st, 28th; from Kalgane, the 6th, 23d, 30th, 7th; from Pekin, the 18th, 25th, 2d, 9th. In the direction of Pekin to Kiakhta—From Pekin, the 4th, 11th, 20th, 27th; from Kalgane, the 6th, 13th, 22d, 29th; from Ourga, the 15th, 22d, 1st, 8th; from Kiakhta, the 17th, 24th, 3d, 10th.

The charge upon correspondence for China is fixed as follows: a. The charge from the point of departure in the interior of the empire to the frontier post-office at Kiakhta is the rate fixed by the postal tariff for the interior. b. The charges between Kiakhta, Ourga, Kalgane, Pekin and Tien-tsin are:

a. Single rate—1. For every single letter, with documents, credit or bank notes, small objects in silver or gold, and for telegraphic dispatches, per loth (half ounce). From Kiakhta to Tien-tsin, Pekin, and Kalgane, and vice versa, thirty copecks; from Kiakhta to Ourga, and vice versa, ten copecks; from Ourga to Tien-tsin, Pekin and Kalgane, and vice versa, twenty copecks; from Tien-tsin to Pekin and Kalgane, and vice versa, ten copecks.

2. For parcels, ordinary or containing documents, per livre (pound), from Kiakhta to Tien-tsin, Pekin and Kalgane, and vice versa, forty copecks for single parcels, and sixty-five copecks if they contain documents; from Kiakhta to Ourga, and vice versa, for single parcels, fifteen copecks—with documents, twenty-five copecks; from Ourga to Tien-tsin, Pekin and Kalgane, and vice versa, for single parcels, twenty-five copecks—with documents, forty copecks; from Tien-tsin to Pekin and Kalgane, and vice versa, for single parcels, fifteen copecks—with documents, twenty copecks.

3. Parcels containing objects of value, if weighing under a pound, will be charged letter rate upon every loth (half ounce); if weighing exactly a pound or over, will pay per pound parcel rate. Coin and goldsmith's work can only be forwarded by the Mongol post in parcels not exceeding ten pounds' weight, package included. Parcels containing coin or goldsmith's work should be packed in the most substantial manner.

b. Charges upon unpaid parcels are reckoned in the same proportion as for their transmission from the point of departure in the interior of the empire to the frontier post-office at Kiakhta.

The change of couriers between Kiakhta and Tien-tsin is for one horse ninety-eight roubles, for two one hundred and forty-seven roubles. The department thinks right to add that the post leaves St. Petersburg for Kiakhta every Tuesday and Friday, and reaches Kiakhta in five weeks.

The Telegrapher:

PUBLISHED BY THE
NATIONAL TELEGRAPHIC UNION.

THE UNION is an association of telegraph operators, for their own mutual benefit and support, and THE TELEGRAPHER is published to disseminate information among its members, as well as general telegraphic news.

THE TELEGRAPHER is published in New-York, on the first and fifteenth of every month, and besides matters of associate interest, is devoted to the interests of telegraphers all over the world, and will contain telegraphic information from all parts of the globe.

It is not confined to any one policy, but will seek to correct abuses, give honor and praise wherever and whenever due, and endeavor to elevate the standard of operators, both morally and scientifically.

It will not support any one person or corporation, but will aim to treat all alike, censuring either or both, when merited, and praising alike when praise is won.

Its columns will not be open to any one for personal abuse, nor for personal profit at the expense of others, nor will it contain anything that the most fastidious would not read.

We invite the co-operation from every one who is directly or remotely connected or interested in Telegraphy, in this undertaking to establish and maintain a first-class telegraphic newspaper, and for any items of news or personal telegraphic interest, articles or newspaper extracts upon any of the above-mentioned subjects. We will cheerfully pay a reasonable sum for any trouble and expense gone to in behalf of this paper, and for any original article which we may use.

We request aid from all, whether high or low, and will make a fair return for the same.

THE TELEGRAPHER is a medium quarto of twelve pages, (the last four of which will be devoted to Advertisements of Telegraphic Materials, or any other respectable business,) with clear type and on good paper. It will aim to be a first-class telegraphic newspaper, and not to be surpassed in the vigor and spirit of its editorials, nor in the variety and freshness of its reading matter generally. On all subjects which it discusses, it will aim to be correct, independent clear, conscientious, and fearless.

Whatever the experience of its conductors—whatever industry, energy, and a liberal expenditure of money can accomplish toward making a good and powerful paper, are pledged to the subscribers of THE TELEGRAPHER.

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Club rates are not allowed to District Directors unless for persons not members of the Union.

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Newspapers, by inserting this Prospectus, and sending a marked copy to the Editor, will be entitled to an exchange.

All communications and letters relating to THE TELEGRAPHER must be addressed to the Editor care B. & B. Telegraph Office, No. 14 Broad Street, New-York.

MEETING NOTICE.

THE regular meeting of the New-York District will be held in room 52, 117 Broadway, Tuesday evening, February 6th, 1866. Full attendance requested.

WALTER STEINHOFF, Dist. Director.

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Western Union,.....	\$100 shares.....	51
American,.....	"	118
Russian Extension,.....	"	25
United States,.....	"	40

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No notice will be taken of anonymous communications: the name and address of the writer must always accompany each article or communication.

Correspondents sending articles for insertion must write briefly, and on but one page of each half sheet of paper. We cannot return rejected articles.

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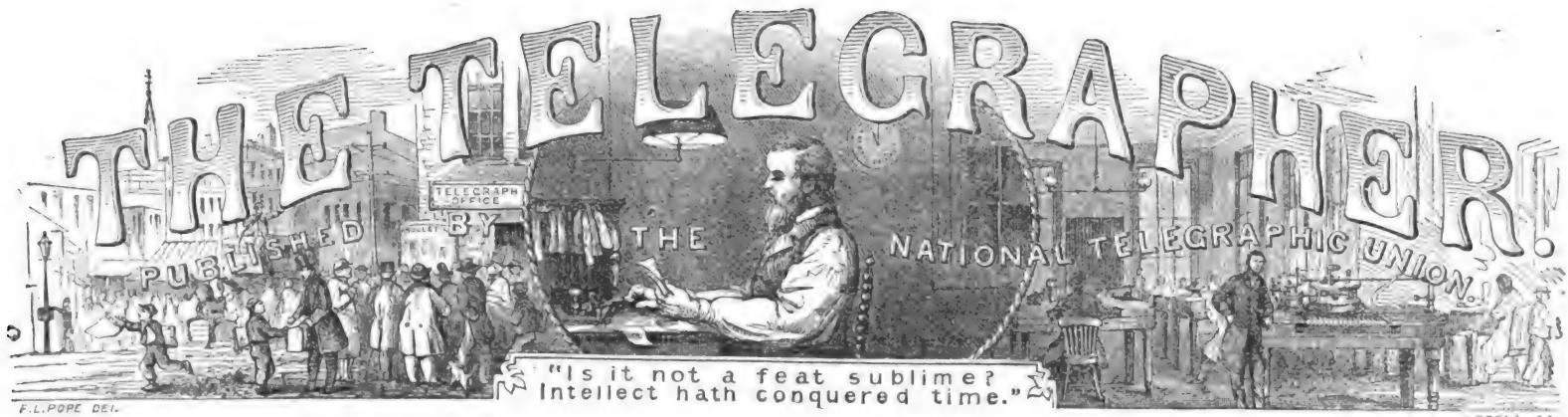
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Vol. II.

New-York, Monday, April 16, 1866.

No. 26.

GENERAL OFFICERS

OF THE

NATIONAL TELEGRAPHIC UNION.

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THE NATIONAL TELEGRAPHIC UNION.

"BOSWELL," in No. 23 of *THE TELEGRAPHER*, had a well-written article under the above caption. I was pleased to see the initiation to an agitation which must be productive to the Union's welfare, at the same time it pained me that the writer did not devote more thought to his subject than he did, so that he would have avoided conclusions he arrived at in direct opposition to facts. It would also have pleased the friends of the Union better had he used his fluent pen to the advancement of the higher objects of the Union, as well as to the subordinate one of self-interest. Telegraphy to-day is presented to the world in its proud position of illimitable importance. It stands now higher than it did five years ago. Every phase of society feels its importance and influence, and daily is relying more and more upon its aid in the conduct of all matters that pertain to advancing civilization. Its incalculable importance to the Government, during the late bloody conflict, as a valuable, loyal auxiliary, has given its merits a tardy recognition in the public mind, and placed them upon a good basis; and it is to us and those into whose hands hereafter shall be placed the scepter it looks not only to keep its proud standard flying high above the muddy roads of disrepute, but to raise it still higher, even to the blue skies of unwavering confidence. The Union of Telegraphers to achieve this was the first step, and a good one. It bands operators together and reminds them of a common interest, but it must not stop there—self-interest *must* not be the only motive of union or the Union will soon be degraded. We must work, work, work as men owing a duty to the human family now existing and yet to come. Work to elevate the standard of operators so they can better comprehend and better use this great instrument of God in his work of enlightenment. If we should feel we are not appreciated by the community as we should be in our labors, don't let us falter, don't look back, don't despair, but look steadily ahead, and it won't be long ere those who now pass us haughtily by will consider it an honor to know us. We must look upon telegraphy as a science, study it as such, speak of it as such; dive deep into all the mysteries of electricity, galvanism, magnetism, of induction, conduction, and insulation—into invention; perfect ourselves by study to become *educated telegraphers*. Let this become the prominent object before each meeting of every District, and my word for it, telegraphy and "the National Telegraphic Union" will occupy such a proud position that the difference between their positions now and then will be as great as the difference between

the prosperity of semi-barbarous nations and that of our own God-favored land. Those who have not the energy to rise above the mere machine had better withdraw themselves from the professions and seek more congenial fields to labor in.

"Boswell" proposes, among many good things for the advancement of the Union's interests, a classification of members which, although I do not admire, I do not object to, but on behalf of way-operators and railroad men I do most emphatically protest to his ill-founded, illogical conclusions that "way operators" and railroad men, as a class, are not the equals of city operators, or as he chooses to call them, "commercial men" in points of "good general information, practical and theoretical knowledge of the art and business, expertness, penmanship, and unimpeachable character." From "way-men" and "railroad-men" have arisen most of our superintendents of telegraph, and to way officers and railroad officers many railroads are indebted for their able managers. A man of any acquaintance with the devotees of telegraphy knows that whilst there is not one in a hundred of city operators who has any practical knowledge of construction and repairs, there is not one of "Boswell's" second-class men, of one year's experience, but that possesses it. Again, where there are five city operators of intemperate habits, there is not one of *such unimpeachable (?) character* to be found in the country. And, again, where you will find in way offices a half-dozen scientific works pertaining to the profession, and carefully studied, you scarcely find one in a city office. Boswell appears to be possessed of the contempt of way men which disgraced the large offices a few years ago, and which I hoped had been buried on the Union's formation. Class jealousies should not be permitted to raise their heads in our organizations. If they are, however, and "way men" and "railroad men," because they are such, are to take the second place at the table, let it be known at once, so that we can do what we are able to do—set a table for ourselves. I am devoted to the Union and have been doing all in my power to advance its interests, but I have no idea of doing anything further, if we of the interior are to be judged, not by our abilities, but by the narrow standard of prejudice. And I hope such sterling good men as Young, of Washington, Smith, of New-York, Hammond, of St. Louis, will, as officers of the Union, give their opinions on the issue "Boswell" has raised, and thus show the "way men" and "railroad men" where they stand.

Yours,
HARRISBURG, Pa., March 9, 1866.

W. B. W.

CIRCULAR.

OFFICE OF THE UNITED STATES TELEGRAPH CO., }
117 BROADWAY, NEW-YORK, March 16th, 1866. }
To the Stockholders of the United States Telegraph Company:

EARLY in the present year, the officers of this Company entered into a consultation with the officers of the Western Union Telegraph Company with respect to the greater security and more permanent value of telegraph property, and the methods by which this could be effected. A brief examination satisfied both parties that the enormous

cost of separately maintaining and operating the lines of the two companies, the expensive competition for business at the same points, and over similar routes, was steadily consuming an amount which would ultimately equal the largest earning of both.

The rapid extension of our own lines over distant territory, and the opening of hundreds of offices, necessarily for the time unproductive, had, for the past six months, absorbed more than our entire revenues, although the general business had largely increased. The consultation, therefore, had, to us, the most positive concern. Nor was it materially less so to those whose larger property and power as a corporation were being injured by the vigorous opposition we had presented to their progress.

Under these circumstances, the project of a consolidation of the lines naturally suggested itself. The economy of such an act became more and more apparent; and although both parties felt that their present attitude of opposition was acceptable to the public, the necessity for retrenchment, of which consolidation gave the most radical opportunity, demanded of us the first consideration. While, therefore, it seemed impossible to secure, immediately, all the reduction of expenses of which the union of lines seemed susceptible we became satisfied that a saving of at least half a million of dollars would be secured during the current year, and twice that sum after time had given opportunity to organize the united interests on a basis of economy compatible with continued, and, if possible, greater efficiency.

After patient examination, and most rigid investigation by those most deeply interested, and with the unanimous approval of the Executive Committee, a contract was entered in February 27th, 1866, of which the following are the stipulations:

First. The lines of the United States Telegraph Company to be placed under the management of the Western Union Telegraph Company, March 1st, the United States Telegraph Company to have four representatives in the new Board of (fifteen) Directors.

Second. The United States Telegraph Company to receive, for distribution upon its present capital stock of six millions of dollars, *fifteen per cent* of the net earnings of the united lines, and *twenty-five per cent* after the completion of the line from Chicago to San Francisco on a basis of an additional five millions of United States Telegraph Company stock, which the United States Pacific Telegraph Company have agreed to accept in lieu of seven millions, to which their contract entitled them.

It is, however, understood that no part of the profits which may hereafter accrue to the Western Union Telegraph Company, from the business of its Russian extension line, other than exclusive connection therewith at the present limits of the Western Union Telegraph Company, is to be given to holders of United States Telegraph Company stock, until the same has been exchanged for stock of the Western Union Telegraph Company, the possession of which will entitle holders to all advantages belonging to other Western Union Stockholders.

Third. Holders of stock of the United States Telegraph Company to have the right to exchange their stock for stock of the Western Union Telegraph Company at the ratio of THREE SHARES of the stock of the United States Telegraph Company for TWO SHARES of the Western Union. This privilege to be open for six months.

Fourth. The Western Union Telegraph Company to assume all contracts heretofore entered into by the United States Telegraph Company and not yet fulfilled.

This contract, of which the above are the material items, was presented to a special meeting of the Board of Directors, held in New-York, March 3d, 1866, at which the following gentlemen were present:

W. E. Dodge, Charles Macalister, Charles J. Martin, Lewis Roberts, Delos De Wolf, Samuel Munn, James S. Sturges, George F. Davis, William Orton, David Fleming, John D. Taylor, Theodore Adams, John Hulme, Henry Morgan.

After full discussion, the following resolution was UNANIMOUSLY adopted:

"Resolved. That the agreement for the consolidation of the lines and property of the United States and Western Union Telegraph Companies, made and executed by the officers of said companies on the 27th day of February, 1866, be, and the same is hereby approved, ratified, and confirmed; and the President and other officers of this Company are hereby authorized and directed to execute such further contracts and conveyances and to perform all such other acts or things as shall be necessary to give full force and effect to said agreements."

Of the seven absent Directors, several were consulted, all of whom signified their approval.

By the terms of the contract, which only awaited the ratification of the Board of Directors, the two Companies are now consolidated, and their united properties and management in the hands of the Western Union Telegraph Company.

The data on which this agreement is based was ascertained by comparing the business of the two lines for 1865, and estimating the same for the present year. The result proved that the business of the Western Union Company was about four times that of the United States Company during 1865, and would be at least three times that of the present year.

On the basis of the present year, therefore, the capital of the United States Telegraph Company should be represented by \$7,833,333, a sum equal to one-third of the capital of the Western Union Telegraph Company, or one-fourth of the capitals of both companies when united. On a like basis, the United States Telegraph Company should receive one-fourth the united earnings. These the contract secures.

It seems proper in this connection to say that, while the dividends will be essentially the same, whether U. S. stockholders exchange their stock or not, yet there are probable advantages which appear to render the exchange desirable. If stock is held as at present, an organization with its necessary expenses must be maintained. There is also in the connection of the Western Union Telegraph Company with the lines through Russia, now approaching completion, such prospective benefit to its stockholders as to induce us to recommend to holders of United States stock to accept the option of exchange offered them at an early day.

It is the clear conviction of your Executive Officers, and of all who have examined the circumstances under which this act of consolidation has been consummated, that the best interests of all concerned have been secured on the best basis possible, both for the present safety and permanent value of their stock, and that, beginning with July next, fair dividends will hereafter regularly accrue, which might otherwise have been impossible for years.

The interests thus consolidated, with its property covering the vast sweep of territory from the Atlantic to the Pacific, and its connection via Russia with Europe consummated, it is believed that the new Company, besides

being the largest telegraph organization in the world, will be placed under such efficient management, and so adapt itself to the public interests and necessities, as to render it one of the safest and most regular of public investments.

WILLIAM ORTON, President.

JAMES D. REID, Secretary.

INSTRUCTIONS FOR THE EXCHANGE OF STOCKS.—As the option to exchange stock is limited to six months from March 1st, and as all stock exchanged prior to July 1st will be entitled to participate in any dividend that may then be declared by the Western Union Telegraph Company, it is advisable that all stockholders desiring to avail themselves of this option should give it their immediate attention.

To facilitate the exchange of the United States stock for that of the Western Union, you will fill up the second blank in the printed form of power of attorney on the back of each certificate you hold, by inserting the words, "The Western Union Telegraph Company;" sign your name and post-office address at the bottom of the power of attorney; have at least one witness thereto; attach and cancel a twenty-five cent revenue stamp to *one certificate only*, and send the same, in the envelope herewith enclosed, to Theodore F. Hay, Treasurer United States Telegraph Company, No. 117 Broadway, New-York, who will effect the exchange and return you the certificate or certificates of Western Union Telegraph stock to which you may be entitled; and if you desire the certificates of Western Union Telegraph stock which you are entitled to receive in exchange, or any part thereof, issued in any other name than your own, state the name, residence, and number of shares plainly in your letter.

The shares of both United States and Western Union Telegraph Companies being \$100 each, in case the number of shares of United States stock held by you is not exactly divisible by 3 (in which case you will receive exactly two-thirds of the amount in shares of Western Union), there will remain one or two shares of your stock not exchangeable for Western Union. To enable you to accomplish the exchange of this remainder, you can remit to the Treasurer, with your certificates, the sum of \$50 for each share of United States stock required to make up three shares (giving you, by this, two additional shares of Western Union). He will purchase at market rates the one or two shares required, and return you the balance, if any, with statement of purchase. In case you prefer to sell your remaining one or two shares, he will, on your direction, sell the same at best market rates and remit you proceeds with your certificate of Western Union stock. This arrangement is made solely for the convenience of stockholders, and no fees or commissions will be charged for either buying or selling your stock.

Standing to your credit on our books — shares, giving you by exchange of three shares for two, — shares of Western Union stock and — share of United States stock over. Remit the Treasurer —, which will give you — shares additional of Western Union, or authorize him to sell the — share and remit proceeds. In case you have disposed of any portion of your stock, and the same had not been transferred prior to March 1st, the above statement will differ from the amount of stock you actually hold by the amount sold, you can then surrender what you hold, applying the rule above with reference to the odd shares, if any.

THEO. F. HAY, Treasurer.
117 BROADWAY, NEW-YORK.

A NEW COMPANY.

ARRANGEMENTS for constructing the first Division (3000 miles) of the Atlantic and Pacific Telegraph Company's lines between the Atlantic and the Mississippi. A superior double line by two distinct routes, with cross lines from the seaboard to the Mississippi River, provided for by a contract between the Atlantic and Pacific Telegraph Company and Elbert H. Van Kleek. An extension of the contract contemplated to San Francisco to connect with

the entire range of lines in the rapidly developing territory of the Pacific, and with the Russo-American line, now building.

THE ATLANTIC AND PACIFIC TELEGRAPH COMPANY,
CAPITAL, \$5,000,000.

ARTHUR F. WILMARTH,	President.
W. M. GUION,	Vice-President.
RICHARD J. THOME,	Treasurer.
C. A. HARPER,	Secretary.

VOSK and McDANIEL, Counsel.

TRUSTEES—Arthur F. Wilmarth, Vice-President Home Insurance Co.; Richard J. Thome, President New-York Equitable Insurance Company; Hon. Henry Hogeboom, New-York Supreme Court. Hon. Wm. D. Snow, United States Senate; Hon. Moses F. Odell, Naval Officer, New-York; Henry A. Smythe, President Central National Bank; H. F. Spaulding, Spaulding, Hunt & Co.; Thomas Small, Thomas Small & Sons; T. S. Young, T. S. Young, & Co.; Charles M. Connolly, Charles M. Connolly & Co.; Jno. H. Mortimer, Mortimer & Debost; Wm. H. Guion, Williams & Guion; Rufus R. Graves, R. R. Graves & Co.; Elisha Brooks, Brooks Bros.; John W. Masury, Masury & Whiten; Henry M. Taber, C. C. & H. M. Taber; Norman S. Bentley, Bentley & Burton; John Armstrong, M. Armstrong & Sons; Louis Jay, Christ, Jay & Co.

EXECUTIVE COMMITTEE—Wm. H. Guion, John H. Mortimer, John Armstrong, Norman S. Bentley, Hon. Wm. D. Snow.

FINANCE COMMITTEE—J. S. Young, Elisha Brooks, John W. Masury.

Synopsis of contract between the Atlantic and Pacific Telegraph Co. and Elbert H. Van Kleek, dated 22d Dec., 1865, and the supplementary contract dated 9th March, 1866:

1. The contractor agrees to construct and build 3000 miles of Telegraph communication. The said lines are to run as follows:

From Boston, by way of New-York City, to Chicago and to Milwaukee, by way of Albany, Troy, Utica, Syracuse, Oswego, Buffalo, Erie, Cleveland, Toledo, and Detroit; from New-York City to St. Louis, via Philadelphia, Baltimore and Washington, and from Philadelphia, or some other suitable point on the line between New-York and Washington, as the said Company may direct, by way of Pittsburg, Columbus, Cincinnati, Louisville, Vincennes, and St. Louis. Cross lines between Pittsburg and Erie, or between Columbus and Cleveland or Toledo, as the said Company may direct, or on both routes if they or either of them can be embraced within the 3000 miles above contracted for, so as to connect the main through lines at the points designated, and thus render more certain the transaction of business by one or other of the routes, when any section of either main line is temporarily delayed or injured by storms or lightning.

2. The posts, wires, insulators, submarine cables, and other essentials of the construction, and the apparatus for telegraphing, and all the equipments of the offices, provided for by contract, are of the first quality, and of the newest and most approved plans, and are adapted to secure the object aimed at—of furnishing the most complete and perfect telegraph line ever constructed.

3. The contractor is to be paid only after the completion and delivery of the lines in sections, and upon the certificate of an Inspector appointed solely by the Company, and an ample guarantee for the fulfilment of the contract is afforded by the retention of a sufficient proportion of the stipulated payments until the final completion and acceptance of the work.

4. The work is to be commenced as soon as \$500,000 has been subscribed, which sum will secure the completion of the lines to Chicago, and enable the Company to commence a lucrative business between New-York and that point.

5. The Company is protected by the most stringent provisions against delays on the part of the contractor.

6. Out of the first subscription \$100,000 is to be paid

to and held by the Treasurer of the Company for working capital.

7. The entire stock of the Company is, by virtue of a trust-deed duly executed, transferred to Richard J. Thome, as Trustee, for the protection of the Company and of the contractor; and the subscribers will pay their subscriptions to the Trustee in installments; and upon full payment of their subscriptions at the rate specified will receive certificates for their shares of full paid unassessable stock.

GALVANISM—THE DANIELLS' BATTERY.

NO. II.

PREVIOUS to the invention of the Daniells', or protected Sulphate of Copper Battery, the batteries in use were very unreliable in character, and they materially impeded the progress of telegraphy. Prof. J. F. Daniells, of London, was the first to invent a battery capable of constant and uniform action, and thus overcome the defects of those previously in use. The defects which cause the electro-motive action to subside rapidly, and soon to cease altogether, are—1st. The sulphuric acid becomes saturated with the oxide of zinc. 2d. The hydrogen adheres to the surface of the metals, and thus prevents their perfect contact with the water. 3d. By the chemical action of the battery, the zinc contained in the sulphate of zinc which is formed, is reduced to the metallic state at the surface of the copper, and deposited on it in the form of a crust, where it acts locally and impairs the conducting power. 4th. Electricity is carried off by the escaping hydrogen. 5th. Impurities on the surface of the zinc form small circuits, by which the electricity is conducted back into it, without going through the fluid to the copper, and then returning by metallic connection.

The Daniells' Battery, invented in 1836, consists of an outer vessel, nearly filled with a solution of dissolved sulphate of copper, into which is placed a sheet of copper, cylindrical in form, to which is attached a perforated copper chamber for holding the crystals of the sulphate. Within the copper cylinder is a porous cell of earthenware, into which is put the zinc cylinder, surrounded by water.

The chemical action in this form of battery is as follows: The zinc is oxidized, as usual, at the expense of the water around it; while the hydrogen, instead of being given off at the surface of the copper or negative plate, decomposes the sulphate of copper, and forms water again with the oxygen of the resulting oxide of copper, and liberates the sulphuric acid, which, passing through the porous partition, combines with and removes the oxide of zinc. Sulphate of copper, commonly called blue vitriol, is a compound of sulphuric acid and protoxide of copper; one equivalent of each. The principal feature of this battery is the use of the porous partition, which divides the vessels containing the metals into two cells, without obstructing the passage of the electric current. It prevents the passage of the sulphate of zinc to the copper plate, and thus remedies the third of the above-mentioned defects, and at the same time it equalizes the flow of the sulphuric acid toward the zinc. The hydrogen being consumed in the formation of water, cannot interfere with the action of the conducting plate, nor carry away electricity, and thus the second and fourth defects are removed. The deposit of metallic copper on the negative plate serves to keep it bright, thus making it a better conductor. The fifth defect is obviated by amalgamating the zinc with mercury, which covers up the impurities existing on its surface. The latter is seldom done in this battery, as the defect is not material.

This battery is preferable for its surprising constancy (though not so energetic in power as the Grove Battery, which will be described hereafter), and the freedom with which it can be handled by persons to whom the use of acids would be inconvenient. The solution of sulphate of copper is entirely neutral, and does not injure the

color or texture of organic substances. The deposition of metallic copper on the negative plate and porous cell, is the principal inconvenience attending it; this deposit sometimes adheres so firmly as to be difficult of removal, which, however, is only necessary when it interferes mechanically with the working of the battery.

The force of a Galvanic Battery is equal, other conditions being the same, to the amount of corrosive force in the solution, minus the forces of the chemical affinities which have to be overcome in the decompositions which necessarily attend the process. The only chemical affinity to be overcome in this battery is that of oxygen for copper. Its force may be stated as equal to the affinity of oxygen for zinc, minus the affinity of oxygen for copper. The quantity of the electricity in the Galvanic Battery is exactly equal to the quantity of zinc oxidized; the intensity, to the forces of the chemical affinities concerned. The essential requisite necessary to maintain the power of the Galvanic Battery, in its management, is cleanliness. This battery should be cleaned regularly about once a week, by removing the loose deposit of oxide of zinc on the zinc, and the sediment in the bottom of the porous cup. The solution in the porous cup should be replaced with the addition of a few crystals of the sulphate placed in the perforated copper chamber, to keep its outer solution of uniform strength. When the battery is weak, the addition of a few drops of sulphuric acid, or a little common salt, to the porous cup, will temporarily strengthen it. The metallic connection should be kept clean and bright.

This battery is employed by telegraph companies chiefly for local circuits.

Meeting of the Press Club.

We scissor the following from a Philadelphia paper:

"The semi-monthly meeting of this association, which was held on the afternoon of the 7th January, was one of more than ordinary interest. After the transaction of the ordinary business, John Hasson, Esq., of the Associated Press, read a most interesting paper upon the subject of 'Telegraphing—Its Connection with the Newspaper Press of the United States.' Mr. Hasson has been long connected with telegraphing and is entirely familiar with its workings, and consequently his essay was one fruitful of instruction to all who had the pleasure of listening to it. He related his experience as the correspondent of the Associated Press with the Army of the Potowmack, many of the incidents being of a most amusing character. He went very fully into the subject of the value that the telegraph had been during the war, in the promptitude of their dispatches both to the War Department and to the newspapers throughout the country.

"The topics suggested by the essay gave rise to a lengthy and warm discussion of the merits and demerits of the Associated Press. E. W. C. Green, Esq., of the *Sunday Transcript*, held that the association was a monopoly, that it rather hinders than otherwise the transmission of news. He referred to the fact that Philadelphia morning papers had frequently procured fuller accounts of important facts from the New-York afternoon journals, and even the Western papers. He called attention to the fact that since the close of the war the news furnished by the Associated Press, with the exception of the foreign news, was comparatively valueless, and that the expense attending it was enormous. He also instanced the fact that much of the most important news which finds its way into the newspapers is special correspondence, and is not obtained through the channels of the Associated Press.

"John D. Watson, Esq., of the *North American*, held that the Associated Press was a very valuable organization, and furnished much news that was not obtainable from any other source, and believed that it ought to be sustained by all the newspapers in the country. The association was particularly valuable because of its facilities for obtaining foreign news."

Caution.

[From the Detroit *Free Press*, March 23d.]

We, the students of Bryant, Stratton & Goldsmith's Telegraph Institute, of Detroit, having waited until forbearance has ceased to be a virtue, desire to make known to the public our entire dissatisfaction with the general management of the institute. We procured and paid for our scholarships, in view of inducements held out through their advertising sheet, which was to the effect that everything was made practical, that nothing was wanting to facilitate the progress of students, and that situations were almost waiting for them; that the department was superior to anything of the kind in the United States, etc. We would respectfully announce that such is not the case. We have no telegraph books showing the student how accounts are kept in every business office. We have no relays, as are used on all regular working lines, teaching the scholar to "adjust." We have no main and local batteries connected, which are indispensable, where a register or sounder are used, and in place of a good practical "sound" operator as teacher, we have had (since the 1st of March) a student from the Chicago College, whom we deem not capable of imparting practical knowledge to students, especially to those advanced in the art. We caution others, while we whisper to ourselves, "sold."

B. F. HERRINGTON.

W. M. ANDERSON.

J. J. BENSTER.

TO THE EDITOR OF THE TELEGRAPHER:

We, the undersigned members of the N. T. U., respectfully request you to have the above "CAUTION" published in an early edition of the THE TELEGRAPHER.

Yours truly,

T. W. PRIEST,	C. CORBETT,
J. C. SULLIVAN,	HUGH IRVINE,
GEO. W. LEE,	A. H. REESE.

Larg e Wire Manufactory.

At the Quinsigamond Iron Works of Messrs. Washburn & Moen, Worcester, Mass., iron wire is made on a most extensive scale. Upwards of eight tons per day of iron wire of all sizes is manufactured, besides hoop-skirt wire to the amount of six tons. They are the largest makers of iron and steel wire in the country.

Wire for hoop-skirts is drawn out round, then flattened by passing it through rollers, and, lastly, tempered by running it through a bath of melted lead and another of oil. It is subsequently covered with cotton yarn and is ready for market. The covering is also done at these works.

The sizes of wire manufactured run from half an inch to forty-six gage. A curious item in the manufacture is the quantity of flour used. This would seem to be one of the last materials needed in an iron mill, but many hundred barrels are worked up in the course of a year. It is made into paste and rubbed on the wires to "lubricate" them as they pass through the draw plate and prevent cutting.

A fine new mill is being built by the company on the premises immediately adjoining their present works. This structure is five stories, built of brick, and is 146 feet long by 50 feet wide, and has in the aggregate an acre of flooring.

The quality of goods turned out from these works is unsurpassed, and they are used for all purposes, from bridge building to piano-forte making.—*Scientific American*.

THE ATLANTIC TELEGRAPH.—The books for subscriptions to the stock of the Anglo-American Telegraph Company were closed in London on the 13th March. All the capital required to make and lay a new cable and to get up and complete the one about two-thirds laid last year has been subscribed. The contractors are making nineteen nautical miles of the new cable per day, and it is a great improvement upon that of last year. The Great Eastern was being put in the most perfect order, and the 30th June is still the day fixed for her departure from Sheerness for Valentia, Ireland.

TELEGRAPHIC LEGISLATION.

New-York Legislature.

IN ASSEMBLY,

JANUARY 16, 1866.

Introduced on notice by Mr. Selden—read twice, and referred to the Committee on Judiciary — reported favorably from said committee, and committed to the Committee of the Whole.

AN ACT

To confirm certain proceedings of the Board of Directors of the Western Union Telegraph Company.

The people of the State of New-York, represented in Senate and Assembly, do enact as follows:

SECTION 1. The resolution of the board of directors of the Western Union Telegraph Company, passed on the fifteenth day of November, eighteen hundred and sixty-five, authorizing an increase of the capital stock of said company to the amount of three millions of dollars, with a guaranty of the payment of dividends thereon, is hereby confirmed, and the said board of directors is authorized to issue the stock as provided in said resolution.

SEC. 2. This act shall take effect immediately.

(The company decided not to increase the capital, but to issue bonds.)

In the Senate of the United States.

FEBRUARY 20, 1866.

Read twice and referred to the Committee on Foreign Affairs.

JOINT RESOLUTION

To encourage and facilitate telegraphic communication between the Western and Eastern Continents.

Whereas, by an act entitled "An act to encourage and facilitate telegraphic communication between the Eastern and Western continents," approved July first, eighteen hundred and sixty-four, it was provided, among other things, that the Secretary of the Navy be authorized to detail a vessel to assist in surveys and soundings, laying down sub-marine cable, transporting materials connected therewith, and generally afford such assistance as might be deemed best calculated to secure a successful promotion of the enterprise; and whereas, the Emperor of Russia, for the purpose of coöoperating with the Government of the United States, under the act aforesaid, has ordered a steam corvette, the "Variay," of two thousand one hundred and fifty-six tons burden, seventeen guns, three hundred and six men, to assist in the achievement of said telegraph, and has placed the said steamer subject to the orders of said telegraph company; and whereas said telegraph company intend, the ensuing summer, to lay the submarine cable required at Behring's Strait, said cable and the material for the entire line being now in transit, and the vessels of the company, seven in number, being ready at San Francisco and Vancouver for the expedition, and require immediate coöperation on the part of the United States, in conformity with said act: Therefore

Be it resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Navy be, and he is hereby authorized and required to detail one steam vessel from the squadron of the Pacific station, or elsewhere, to assist in making surveys and soundings in that part of the Pacific coast, both of America and Asia, where it is proposed to establish said telegraph, in laying the submerged cable, in transporting materials connected therewith, and generally to afford such assistance as may be best calculated to secure the success of the enterprise and to carry out the purposes of the act approved July first, eighteen hundred and sixty-four, entitled "An act to encourage and facilitate telegraphic communication between the Eastern and Western continents."

Passed the House of Representatives February 19,

1866, and the Senate, with slight verbal amendments February 21, 1866.

A bill was introduced in the Senate on January 22, 1866, by Mr. Conness, of California, which was read twice and referred to the Committee on Public Lands. This bill authorizes the organization of the "Pacific Coast Railroad Company," granting the right of way, and donating lands to said Company to the extent of two hundred feet in width on each side of said roads, where they may pass through the public domain, to build a railroad and telegraph line "from the waters of the Bay of San Francisco, by the most feasible route, to be selected by the Company, to the waters of Humboldt Bay, in the State of California, with branches through any of the lateral valleys as may be found feasible, so as to connect with the said main road, and maintain a ferry from the point of termination to the city of San Francisco. The capital stock is to consist of two hundred thousand shares of one hundred dollars each.

Sec. 3 grants to this company "every alternate section of public land, not containing gold or silver, designated by odd numbers, to the amount of twenty alternate sections per mile on each side of said railroad line." Whenever twenty-five miles of road and telegraph line are constructed, they are to be inspected by commissioners appointed by the President, who, upon a favorable report being made, will grant "patents to the Company conveying additional sections of land as aforesaid."

The road and telegraph line are to be constructed of the most substantial and approved description. The Company must commence the work on said road (and line) within two years from the approval of this act by the President, and shall complete not less than twenty miles per year after the second year, and shall construct, equip, furnish, and complete the whole road (and line) by the fourth day of July, A. D. 1876."

The rest of this bill relates to matters of little interest to our readers.

The Atlantic Cable.

[City article, London Daily News, March 6.]

THE project of the Atlantic Telegraph Company is once more brought forward, but in a new form. It will be remembered that the original capital of the old company consisted of shares of £1000 each, which were mostly subscribed for, in a liberal spirit, by our merchant princes. After the first failures came an issue of eight per cent preference shares, and this, in its turn, was followed, after the failure of the expedition in July last, by another issue of twelve per cent preference capital. The directors were advised, however, that their act gave them no power to make this latter issue, and it became obvious that the best plan would be to form a new company. Accordingly Messrs. J. S. Morgan & Co. have notified that they are prepared to receive subscriptions for shares in the "Anglo-American Telegraph Company (Limited)" whose capital is fixed at £800,000, in sixty thousand shares of £10 each. The arrangements for the prosecution of this great international undertaking are fully described in the prospectus. The promoters express confidence that the renewed effort will be attended with success, more especially as the whole length of 1212 nautical miles of cable laid from the Great Eastern in July last, and which it is proposed to raise and complete to Newfoundland, continues perfect, as is also the 1070 miles of cable remaining on board the Great Eastern. The new company is to provide 1660 miles of new cable, and to work the undertaking, during the agreement, on behalf of the old company. The whole project is of course a speculation; should it succeed, and the line be laid and work properly, the agreement provides that the receipts in each year are to be applied as follows:

First—In paying to this company one hundred and twenty-five thousand pounds per annum. Second—In

paying seventy-two thousand pounds per annum (representing eight per cent on the Atlantic Company's existing preference stock, and four per cent on their ordinary stock) to the Atlantic Telegraph Company. And third—The entire balance of each year's receipts is to be divided between this company and the Atlantic Telegraph Company in equal shares; but no deficiency in respect to the above annual payments in any one year is to be carried forward to another year.

With reference to the arrangement with the Telegraph Construction and Maintenance Company the prospectus states:

The Telegraph Construction and Maintenance Company will manufacture the new cable, and undertake the actual execution of the work contracted for by this company, as above stated (up to the opening of the Atlantic Telegraph lines for public business), for a total sum of £600,000, with a bonus, to be provided by the Atlantic Telegraph Company under their agreement with this company, of £137,140, in ordinary shares of the Atlantic Telegraph Company, payable by installments, extending over fourteen months, in case the cable of last year is successfully completed, and continues in working order during that period.

There is, in addition, a salvage clause, described as under, and the purport of which is that, in case of failure, one-third of the capital is to be saved to the shareholders.

In the possible contingency of the new cable not being successfully laid, £500,000 only will be paid to the Telegraph Construction and Maintenance Company, and this company will in that event be entitled to the value of all the unused and recovered cable (subject to the payment of certain specified charges thereon), and it is estimated that this arrangement will provide, in case of failure, for a return to the shareholders of this company of at least one-third of their paid up capital.

It is scarcely necessary to remark that all the directors are highly respectable. The first name on the list is that of Mr. George Peabody.

ANOTHER ACCOUNT:

A prospectus has been issued of the Anglo-American Telegraph Company, with a capital of £600,000 in shares of £10, to carry out the arrangements thus far conducted by the old Atlantic Telegraph Company, for laying a new line during the ensuing summer, and for the adoption of suitable measures for raising and completing the broken cable of last year. The new company take over the 1070 nautical miles of cable, which has remained on board the Great Eastern since August, and which is certified to be in a condition as perfect as when it was shipped, and undertake the construction of the 1660 nautical miles of new line necessary to complete the entire length. In consideration of this they are to have a first claim on the receipts to the extent of £125,000 per annum, and they are also to have £25,000 per annum from the New-York and Newfoundland Telegraph Company out of the earnings of that Company for through messages, the combined payments being equal to a dividend of 25 per cent.

After providing for the £125,000 per annum, the sum of £72,000 out of the receipts is to be applied to the payment of 8 per cent on the Atlantic Company's existing preference stock, and 4 per cent on their ordinary stock, and any surplus is then to be divided between the present company and the Atlantic Company. It appears that the whole length of 1212 nautical miles of cable laid last summer is still perfect, and that the position of the broken end is considered to have been determined with the utmost accuracy. Hence the engineers engaged in the late expedition are confident that with the machinery and tackle now being prepared they will be able to raise it so as to utilize it for a second line. The new company is introduced by Messrs. J. S. Morgan & Co., and Mr. Peabody is on the board of direction.

A meeting of the shareholders of the Atlantic Telegraph Company was held on the 8th at the London Tavern, Mr. C. M. Lampson, the Vice-Chairman, presiding

The report stated that immediately after the meeting of October, the directors proceeded to issue the 12 per cent capital, and by means of public subscriptions, aided by arrangements with the contractors, the whole amount for executing the work required was provided. Up to that time the board believed, and had been so advised, that an extraordinary meeting of the company had power to confer a first preference upon the 12 per cent capital, but before the negotiations were finally concluded a case was submitted to eminent counsel, who decided that such a course was not authorized by the Company's Acts of Parliament. The directors were therefore compelled to abandon this method of raising the money for the present year's current expedition, and will consequently return to all subscribers for the 12 per cent shares the deposits which they have paid. Subsequent negotiations with the contractors, in conjunction with whom the best legal advice has been taken, have shown that the only way in which the undertaking can be completed this year is by the creation of a new company, to act as agents of this company for carrying out the work, and accordingly the "Anglo-American Telegraph Company" has been formed, with a capital of £600,000, and such privileges as, it is expected, will cause shares to be readily taken up. In the constitution of the board of this new company the Atlantic Telegraph Company has been duly represented. The contractors, in anticipation of the subscription of the whole capital of the Anglo-American Company, of which nearly one-half has been already bona fide taken up, are proceeding with the manufacture of the cable, and the necessary work has also been commenced on board the Great Eastern, so that the expedition may be ready to sail as early in the season as possible. The conviction of all those whose experience gives weight to their opinion upon the matter remains unchanged as to the almost certainty of success during the ensuing summer, and this conviction is enhanced by the very perfect state in which the submerged cable and that on board the Great Eastern are found to be at the present time.

The Chairman moved the following resolution: "That the arrangements made by the directors for completing telegraphic communication with America during the present year, and their explanation of the contract executed between the Atlantic Telegraph Company and the Anglo-American Telegraph Company, are approved by this extraordinary general meeting of the shareholders." He said it was open to the shareholders of the Atlantic Telegraph Company to subscribe for the new stock, and he was of opinion that it was their interest to do so. By the arrangement made a right was reserved to the shareholders of terminating the agreement in question by paying the new company double the amount of its capital. After some discussion the resolution was adopted. A resolution was afterward passed for the forfeiture of 710 shares in the 8 per cent preferential capital, upon which the calls were in arrear.

An Extensive System of Robbery.

TELEGRAPH OPERATORS THE THIEVES.

FOR some months past Studley's Express Office, 166 Montague street, has been frequently robbed in a most mysterious manner, to the astonishment of the proprietor. The trunks stored in the building for delivery would be broken open in a night and robbed of clothing, jewelry, and valuables, and yet, frequently as this happened, no trace of the thieves could be found, although most diligent search and inquiry were made.

Finally, however, on the 9th of March, a robbery on a grand scale was perpetrated by some parties who had evidently broken the lock off of the front door, entered the place and ransacked every trunk and package, from which every article of a valuable or portable character was taken away. The robbery was all the more mysterious from the fact that in the very store where this ransacking had been going on there slept two young men—one a telegraph operator in the office on the premises,

named John Manwarring, aged twenty-seven years, and the other Charles A. McDonald, aged eighteen years, also an operator in a New-York telegraph office. The former of these two was left to sleep in the store nighly to guard against these very robberies, and the latter, although he had a room in Washington street over Westcott's Express Office, slept with him for company's sake. On the morning after this robbery these two young men were found more soundly asleep than usual, and, their characters being thought good, their asseverations that they had not been awakened during the night, and had not heard any noise whatever, were believed, and their somnolency was accounted for by the suspicion that they had been "chloro-formed" by the thieves after they had forced an entrance and found the two employés asleep on the premises.

Indignant and smarting under his heavy losses, Mr. Studley wrote a sharp letter to Commissioner Acton, complaining that he had been robbed many times in succession, although his place of business was only a few hundred feet from two station-houses. Captain Smith, of the Forty-first Precinct police, was informed of this complaint, and set about "working up" the case. His suspicion at once fell on the telegraph operators, who slept in the store on the night of the robbery, and their explanation seemed to him so lame and impotent that he determined to arrest them on a venture. This was done, and it was found that they were really the thieves, and that they had been carrying on their "little game" for some months past. In the room of the prisoner McDonald was found a peculiarly-shaped gold-headed cane, which was identified as an article which had been stolen but a short time before from one of the trunks temporarily stored in Studley's place. Several pawn tickets for watches stolen from trunks and pledged in New-York pawn-shops were also found and the property being recovered was fully identified. The losses of transient visitors to our city and travelers, amount, it is said, to several hundreds of dollars. Two hundred dollars is the full extent of the losses already known, but many more will probably be discovered as the matter is unraveled by the detectives who have it in charge. The names of the losers known are Captain Egan, \$40, and Mrs. Woodruff, \$50.

The two prisoners are held to await the result of the detectives' researches.—*Brooklyn Union.*

DISTRICT DIRECTORS.

NEW-YORK.	W. Steinhoff, United States	Tel. Office.
BOSTON.	H. W. Wheeler, American	" "
PHILADELPHIA.	Jos. S. Greene, W. U.	" "
BALTIMORE.	J. B. Yeakle, American	" "
WASHINGTON.	T. H. Sherman, American	" "
ST. LOUIS.	Kenneth McKenzie, Pac. R. R.	" "
CHICAGO.	A. H. Bliss, W. U.	" "
LOUISVILLE.	A. Ellison, W. U.	" "
NASHVILLE.	S. F. Van Valkenburgh, S. W.	" "
DETROIT.	T. W. Preist, W. U.	" "
MAINE.	C. I. Collamore, American	" "
BANGOR.		
ALBANY.	A. L. Whipple, N. Y. C. R. R.	" "
UTICA.	J. B. Sabine, W. U.	" "
ROCHESTER.	J. H. Crane, W. U.	" "
CALIFORNIA.	M. Hodge,	" "
VIRGINIA CITY, NEV.		
NEW-JERSEY.	J. A. Wright, American	" "
TRENTON.		
PITTSBURG.		
HARRISBURG.	J. B. Lyndall, W. U.	" "
CINCINNATI.	B. B. Glass, W. U.	" "
ST. JOSEPH.	W. H. Woodring, Box 1021.	
OMAHA.	Frank Lehmer,	Tel. Office.
INDIANAPOLIS.	G. W. Babbitt, Bellefontaine Railway	
TOLEDO.	E. P. Murray, U. S. Tel. Office.	

DISTRICT PROCEEDINGS.

CALIFORNIA DISTRICT.—Regular meeting held Feb. 18th, 1866. The Director in the chair. Twenty-six members present.

Reports of District Director and Treasurer were approved.

Mr. Hodge offered his resignation as Director, but was prevailed upon to withdraw it for the present.

Mr. F. L. Van Denburgh, proposed by L. N. Jacobs, was unanimously elected a member.

The propriety of dividing the District into smaller Districts was discussed, and action postponed until next regular meeting.

John Leatch, formerly a member of this District, was transferred to New-York District.

Resignation of Alex. Bruckman accepted.

Charges were preferred against the following members: J. P. Hodgdon, G. R. Crawford, J. E. Skidmore, George Sawyer, J. W. Sweeney, and E. A. Whittlesey.

A motion to have them all notified, and if cause of charges not removed by the next monthly meeting, they be expelled, was unanimously adopted. Adjourned.

PEORIA DISTRICT.—The following named persons met and organized a District in this city, March 4th: George Thode, D. K. Smith, B. F. Cogger, of Peoria; C. McDaniels, State Line; George Cole, Chatsworth; S. B. Belden, Chana: H. S. Wakeman, El Paso. Mr. Smith, Chairman, George Thode, Secretary.

D. K. Smith elected District Director, B. F. Cogger, Secretary, George Thode, Treasurer.

Meeting then adjourned to meet the following Friday, but owing to sickness and absence of some, did not meet until Sunday, March 18th. Mr. D. A. Rogers, Fairburg, W. R. Albright, Peoria, T. L. Sill, Pekin, A. P. Cadwallader, Chana, were elected members.

Mr. Smith was authorized to solicit subscriptions for THE TELEGRAPHER, on motion of Mr. Cogger.

After some business pertaining to the District, meeting adjourned until Sunday, April 8, 2 P. M.

ST. LOUIS DISTRICT.—Regular meeting, Wednesday, Feb. 21, 1866. Meeting called to order 7½ P. M., Kenneth McKenzie, District Director, presiding.

On account of absence of Secretary, Mr. Pickering was appointed *pro tem.*

Roll being called, eleven members answered to their names.

On motion of Mr. Wilson the minutes of preceding meeting were dispensed with on account of absence of Secretary.

The names of S. B. Fairchild and W. H. Allen were then proposed for membership; H. S. Wilson, C. A. Paxson and E. S. Parmelee were appointed to investigate character of former; J. E. Beemer, J. H. Byrne and E. O. Pickering, on latter.

The Treasurer's report was read and approved, and ordered to be placed on file.

The Treasurer's bond for one hundred dollars for faithful performance of duties and trust was then read, and, on motion of Mr. Wilson, it was ordered to be received and placed on file. M. D. Crain and George H. Crain, bondsmen.

On motion of Mr. Beemer the Committee on Room was granted further time.

On motion of Mr. Wilson, the Secretary be ordered to correspond with the Director of the Louisville District, stating amount of P. Mullaskey's dues to this District, on receipt of which a transfer would be sent him. Carried.

There being no farther business, Mr. Hammond's motion to adjourn was carried.

BALTIMORE DISTRICT.—Special meeting called to order at 8 P. M., March 24. Twenty-two members present.

A communication from Boston District was read, in reference to having a special convention of the N. T. U. held at an early date.

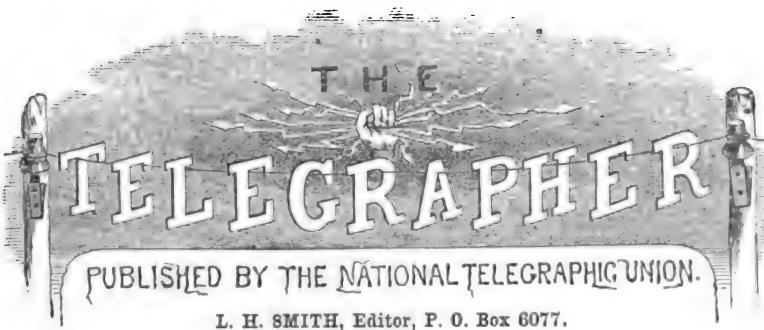
After considerable discussion on the subject, a committee of three was appointed, who presented the following resolutions, which were adopted:

"Resolved, That in the opinion of this District, and in view of recent events calculated to affect the interests of telegraphers and the N. T. U., it is rendered absolutely necessary that a special convention of the N. T. U. be called at as early a date as possible; and be it further

"Resolved, That we join the Boston and other Districts in calling the same."

Committee on Fair reported that the proposition to place a wire and instruments in the fair room had been accepted.

On motion, the committee was increased to four, invested with power to detail operators for each evening duty at the fair. Adjourned.



MONDAY, APRIL 2, 1866.

IN common with the great Dailies which are now so over-crowded with interesting matter, we are compelled by the crowd upon our space to give our readers with this issue a "Triple Sheet." We are looking eagerly forward to the near approach of the time when both of our issues will contain twelve pages.

IN MEMORIAM.—NIGHT WORK.

HERE in this great roaring city, where the morning paper is as much an essential to breakfast as beefsteak and coffee, we have passed nearly half of our little life and undergone our hardest and most fatiguing work. All during the war, when the flagging energies of an operator were taxed to their utmost, we marched in file with those who see the day die and are at the birth of a new one. We mean that small band of laborers, who stem the swollen street-tide, on their way to their labors at the hour when most men throw aside their instruments of toil and go happily home to comfort and rest, and again when the bright sun sends the thousands forth afreshed, our band straggled wearily back to our "sky-parlors" for a fitful sleep, broken and disturbed by the street noises of a great city.

We cannot help having a heart-ache for an operator who is so "strictly first class" as to be put upon a "Press wire" and worked beyond the evening hour.

We have often thought, while sitting at breakfast on our "off mornings" and looking at the long array of morning papers, *The Tribune* sandwiched in between two *Worlds* or a *News*, or *The Herald*, looking exhaustlessly for a policy, or *The Times* tracing out a new fence to ride, how little the readers knew what a vexatious time there was "getting" the news they devour so greedily. We think if they could but once feel the terrible languor that a "night operator" feels when pulling himself home at four A. M., we fancy they would smack their lips with less vim over the choice morsel of a victory.

Although telegraphing is the most fascinating "of all the arts men practice," it is also the most exhausting. It consumes the fluids of the body quicker than any other pursuit with which we are familiar. It is a great "car of Juggernaut" which pushes us forward and crushes us to death by small pinches.

The good millennial day will soon come, we trust, when pity will enter the hearts of the controlling men and cause an amelioration of the duties of the "Owls."

Weak eyes are becoming prevalent among this class of telegraphers, and should give fair warning of what is sure to come. Hear us, and have mercy!

We have information to the effect that Ed. Conway, Assistant Engineer of the Collins' Overland Telegraph, has resigned his position, and that Ralph W. Pope is now Quartermaster of the British Columbia Division, vice Libby.

TELEGRAPHIC MISCELLANEA.

OUR readers and correspondents will please notice a slight change in our address.

MESSRS. STAGER & WRIGHT, as will be seen by the advertisement on the tenth page of this issue, have established a branch depot, for the sale of all articles furnished by Messrs. L. G. Tillotson & Co., at Cleveland, Ohio, which will prove a great convenience to the Western customers of this enterprising firm, who are now busy at their rooms at 26 Dey street, supplying their many orders. Three machine-shops are unable to supply their customers with all the articles needed.

MRS. M. E. LEWIS, of this city, has our thanks for several back numbers of Vol. I. of THE TELEGRAPHER.

We are pleased to receive and return thanks for the following invitation:

Dear Sir:—A series of lectures will be given under the auspices of the BOSTON DISTRICT OF THE NATIONAL TELEGRAPHIC UNION, at 554 Washington street, room 3, commencing April 11, 1866, at 8 P. M., to which your company, with ladies, is respectfully invited.

The following is a list of the lectures, their subjects, and date of delivery:

J. C. UPHAM, Recording Sec'y N. T. U.: "Practical Telegraphy," April 11th.

J. W. STOVER, Manager U. S. Tel. Co.'s Boston Office: "Telegraphic Business," April 18th.

J. B. STEARNS, Sup't Boston Fire Alarm Telegraph: "History and Progress of the Electric Telegraph," April 25th and May 2d.

Please present this circular at the door as a ticket of admission.

H. W. WHEELER,
J. W. STOVER,
T. A. DAVIN, } Committee.

[It is almost needless to say that the many claims upon our time will prevent us from attending this fraternity course of lectures. We trust those gentlemen who have had the courage to inaugurate this commendable effort will be abundantly paid for their trouble.]

THE employees of the American Company in this city had a very large and enthusiastic meeting in the meeting-room of the New-York District of the N. T. U. on the evening of the 3d inst. Some of them were, no doubt, surprised to find the District has such a pleasant and nicely-furnished room, and we trust this pleasing impression will induce very many of them to come often, and not let this initiatory visit prove their first, last, and only one.

A resolution, the purport of which was ambiguous, was, rather hastily, passed UNANIMOUSLY, severely censuring, we believe, the Editor of THE TELEGRAPHER for not being competent to carry on this paper. Judging from the absence of any mention of who ought to carry it on, we presume it is intended it should carry itself on, provided it supports certain measures.

We demand of the Director of the New-York District a private vote of thanks for being the means of such an overwhelming meeting, for our egotism will not permit us to admit that his eloquent appeals, but the contumacious Editor of THE TELEGRAPHER, was the means of drawing such a crowded house of enthusiasm. *Quid faciendum?*

We are pleased to receive and are glad to publish the following letter, which explains itself:

Dear Sir:—I beg leave to inform you that the statement which is published in the last issue of your paper, that I am the inventor of the "Open Circuit Repeater," now in use on the American lines, is not true in fact.

This Repeater is the invention of the Engineer of this Company, Gen. Lefferts, and my connection with it has been simply to carry out the details under his orders. Your informant in this way has, no doubt, obtained the impression that it was my invention.

As soon as the instrument has been properly secured to this Company, I have no doubt the general will gladly furnish you with the drawings and explanations for publication in your paper, and as a matter of interest to your professional readers.

Very respectfully, J. B. TREE, Sup't attached to Engineers' Office.
New-York, March 30, 1866.

[We hope when any of our readers discover a misstatement or any erroneous information in these columns, they will do as Mr. Tree has done.]

MAGNETIC SURGERY.—Dr. W. W. Porter, of Geddes, recently removed a needle which had been for nearly four weeks imbedded in the muscle of the hip of a child two years of age, by passing the positive pole of a horse-shoe magnet, highly charged, over one extremity of the needle. In a few minutes he readily discovered the needle coming nearer the surface, and in less than half an hour the head was drawn through the skin, and it was easily removed. The needle was about two inches in length. The child, during most of the process, was as quiet as though nothing unusual was being done. This statement will interest readers generally, and it may be of service in cases like the one above related.—*Rochester Democrat.*

THE Ill. and Miss. Co. has substituted Hill's battery for the Grove at Chicago. This company now use four hundred cups of Hill's in place of one hundred and thirty of the Grove.

CHANGES, ETC.—Messrs. R. A. Sanford, W. F. Allen and Frank G. Churchill, late of the U. S. Co.'s Chicago Office, have accepted places in the W. U. Co.'s Office same city.

T. T. Childs, late of the U. S. Co.'s Chicago Office, has accepted a situation at Chuptal Lake, Wis.

L. L. Johnson, of Milwaukee, has accepted a position on the N. W. Co.'s lines at Milwaukee.

F. H. Tubbs, late Superintendent of the Western Division of the U. S. Co.'s lines, is to be Superintendent of the C. B. & Q. R. R. lines, *vice* W. H. Hull resigned. The latter gentleman is to take charge of one of the western divisions of the Pacific line.

Chas. Taylor, late Night Manager of the W. U. Co.'s New-York Office, has taken a position as operator and clerk in Adams' Express Office, Cincinnati, which, we understand, is an advantageous change for this gentleman.

T. D. Gibbons, of Cincinnati, has been appointed chief operator of the L. M. R. R. line, *vice* C. S. Rogers headquarters at Xenia, O.

H. N. Snow, late cipher operator on the U. S. Mil. lines at Greensboro', N. C., has taken charge of the Am. Co.'s Newbern, N. C., Office.

W. H. Kelsey, of the W. U. Co.'s Chicago Office, and Jesse H. Robinson, of the same Co.'s Pittsburg Office, sailed in the steamer Arizona, on the 31st ult., for San Francisco, to report to Col. Bulkley for duty on the Collings' Overland Telegraph somewhere in Siberia.

We have private information that there is something good in store for telegraphers which it is not just now politic to state.

A DISPATCH from Major Pope, dated Lake Tatla, January 22d, via Quesnelle, March 9th, says: "All well here, and comfortable. Mercury freezing up. Start North next week."

His Imperial Highness, the Prince Napoleon, accompanied by the Director General of telegraph lines and several Inspectors, was present on the 6th February at the office of the Central Administration on the receipt of the opening speech of her Majesty the Queen of England. This speech, composed of 1255 words, was received in ten minutes, by means of five different wires, by the employés Bresson, Champy, Lacoste, Lecherre, and Marcellé.—*Journal des Télégraphes*.

A NEW apparatus of Professor Wheatstone is spoken of which will allow of transmitting in one minute six hundred signals very distinctly readable.—*Ibid.*

The scientific Japanese Ambassadors now in Paris propose to engage in Franco and England a certain number of workmen of whom several will be employed to construct and work the telegraph lines in Japan.—*Ibid.*

A TELEGRAPH Convention between Sweden and Russia has been signed at Stockholm the 3d of January in prospect of a reduction in the tariff of messages between the two countries by way of Finland.—*Ibid.*

THE Division Superintendent and the Superintendents of Construction of the United States Telegraph Company on Friday, March 30, presented to M. L. Wood, Esq., the efficient and popular General Superintendent of the lines of the Company, a very handsome gold watch and chain, in recognition of the ability and courtesy which had characterized his administration of the affairs of that Company, and his relations with his subordinates. Mr. Wood was taken by surprise, but received this unexpected manifestation of good feeling and appreciation of his services with much gratification. The occasion was one of the most pleasant and satisfactory kind, and the compliment was well deserved and creditable to all who participated in the affair.

ATLANTIC TELEGRAPH CO.,
12 ST. HELEN'S PLACE, LONDON, ENGLAND,
17th March, 1866.

DEAR SIR:—The cable is being rapidly made, and we hope to commence laying the latter end of June.

Very sincerely yours, etc., L. W. C.

WASHINGTON, March 8, 1866.

DEAR SIR:—I have the honor to acknowledge the receipt of yours of the 5th inst., enclosing a resolution adopted "at a regular monthly meeting of the Detroit District N. T. U." expressive of thanks to me on account of my "introduction into the House of Representatives a bill incorporating the National Telegraphic Union."

I see no good reason why the bill should not become a law, and I shall be glad to aid its passage.

Be pleased to carry to the "Detroit District N. T. U." my grateful acknowledgment for the kind expressions contained in said resolution.

Very truly your obedient servant,

F. C. BEAMAN.

HUGH IRVINE, Sec'y, etc., Detroit District N. T. U.

WE find the following very handsome notice in the *Journal des Télégraphes* in its issue of Feb. 15:

"THE TELEGRAPHER, of New-York, in taking notice of the appearance of the *Journal des Télégraphes*, does us the courtesy to wish us a fortunate and long career, and sends us a collection of its articles, from which we shall obtain valuable information.

"Founded by the Telegraphic Union, appearing at first monthly, then fortnightly from the 1st January, 1866, it has soon gained the first place amongst the reviews of this kind, whether for the excellence of its editorials, at the same time scientific and literary, or for the services it renders daily to the telegraphists. In effect the telegraph companies (?) form in the United States a sort of association, of which this journal is the official organ. In this capacity it publishes the financial situation of each District—a situation certified by the members of the committees instituted in each of the States of the Federation. It mentions also the decease, marriages, and births of the numerous telegraphic agents of either sex. One finds in it interesting accounts about the great *American-Russian* line and the Transatlantic line; numerous letters, with or without signature, treating upon administrative questions; dissertations on abstract science at the side of poetical essays on telegraphy.

"In short, the eminently industrial and practical spirit of the citizens of the New World has naturally brought THE TELEGRAPHER to devote a portion of its columns to the announcements and discoveries concerning electricity.

"Want of space obliges us to put by for the next month a curious article about women as telegraph operators, published in the last number of this American journal; but we have wished to acknowledge all that is flattering which this evidence of amiable confraternity shows towards our publication, and to wish ourselves to THE TELEGRAPHER, with one of its anonymous correspondents, that it may live as long as the Telegraph."

[The letter alluded to above is Mr. Stover's, published in our issue of January 15th, and appears in *The Journal* in its issue of March 15th, just to hand.]

STRANGE FREAK OF ELECTRICITY.—The "City Intelligence" man of *The Herald* (12th Feb.) says: "Thunder in the winter" used to be an expletive which was more positive than truthful, but it appears that in this city yesterday a lightning stroke actually occurred, accompanied by the usual phenomena. It was about seven o'clock, and the chimney of a house situated in Division street, between Eldridge and Allen streets, was struck, and the bricks and mortar thrown promiscuously upon the roof of the building and into the lot below. The electricity was succeeded by a faint rumble of thunder. No person was injured, but all in the immediate neighborhood felt slightly the effects of the stroke."

THE French Government, at the suggestion of the Empress, has ordered that a certain number of young girls educated at the Imperial School for Orphans of Military Men at St. Denis shall be provided with places in the telegraph offices. From twenty-five to thirty pupils are now practicing daily on Morse's apparatus, with a view to qualify themselves.—*Frank Leslie*.

PATENT CLAIMS:—2212.—REISSUE—INSULATING TELEGRAPH-WIRE.—Alfred B. Ely, Newton, Mass. Patented Jan. 9, 1866: I claim, 1st, Insulating telegraph-wires and conductors, or their supports, with the material described, substantially as set forth.

2d, The new article of manufacture described, constituting an insulated wire, made substantially as set forth.

53,426.—TELEGRAPH INSULATOR.—Alfred B. Ely, Newton, Mass.: I claim, 1st, The rubber bell and disk attached to the shank, in combination with the pin-hook, when constructed and arranged substantially as described.

2d, An article of manufacture, the rubber bell, chambered pin-hooks, as described.

53,427.—TELEGRAPH INSULATOR.—Alfred B. Ely, Newton, Mass.: I claim, as an article of manufacture, the rubber screw covered pin-hook, with rubber disk attached, as described.

53,430.—TELEGRAPH CABLE.—Samuel T. Fields, St. Louis, Mo.: I claim the elastic cable composed of parts, A and B, combined with the non-conducting and yielding cover, D.

CONGRESSIONAL.—In the House, Mr. Spaulding (Ohio) introduced a bill to grant certain privileges to the Submarine Telegraph Company, which was read twice and referred to the Committee on Commerce.

N. Y. LEGISLATURE.—In the Senate, March 30th, in evening session, the bill amending the charter of the East India Telegraph Company was ordered to a third reading.

THE Dix Décembre, which sailed from Toulon, attended by the Eclaireur, in such disastrous weather, for the purpose of laying down the submarine cable between Corsica and Leghorn, has accomplished that operation with perfect success.

THE consolidation of the several telegraph companies is said to have thrown out of employment some 1500 operators who were engaged by the United States Company.

LONDON, March 9.—The Atlantic Telegraph meeting unanimously approved the arrangements of the Directors for laying the cable this year.

BILLIARD MATCH.—Hartford, Conn., March 28.—The fifth match for the billiard championship of this State was decided last night before the most brilliant audience ever assembled to witness a similar contest, being largely composed of ladies. Gershom B. Hubbell, an amateur, who has held the position of champion since its inception in 1864, defeated for the second time Ralph Benjamin, of Bridgeport, by a score of 1004 to 609. Average runs: Hubbell, 11; Benjamin, 6½. Time of game, three hours and three-quarters. Highest runs: Hubbell, 151 and 141; Benjamin, 35 and 42.

[Mr. Hubbell is a telegraph operator, and was at one time, if not now, in the American Co.'s Office in that city.—ED.]

THE RUSSIAN TELEGRAPH EXPEDITION.

[From the Rochester Daily Union and Advertiser, March 19.]

To those who may at any time have entertained doubts of the feasibility of constructing the telegraph line through Russian America and Asia to connect the two continents, the information just received will at once dispel their doubts. The entire feasibility of constructing a line over the entire route can no longer be questioned. Col. Palmer has received from St. Petersburg a letter which gives very interesting information. It is from Mr. S. Abasa, a Russian gentleman who resided in our city for a long time, and who was justly esteemed by all who knew him. He went to Russia under the auspices of the Telegraph Company, and proceeded with a party to make examinations for the route of the telegraph through the region to the east of Amoor River. He writes under date of January 18, from Ochotsk, and states that he has not only surveyed the entire country from that place eastward to Anadyr River, but has determined in person the route of the telegraph line. This district is that of which little was known, and connects the Anadyr, where Col. Bulkley went last summer, with that portion of Siberia which is settled, and about which there was no doubt. It presents no obstacles, and the work of construction will go along there without difficulty. Mr. Abasa sent his letter by post to Irkurst, where it arrived on the

THE TELEGRAPHER.

19th of February. Thence it was sent by the wires four thousand miles to St. Petersburg, and left there by mail for this country on the 21st of February. Mr. Abasa does not appear to have found anything in traversing the country that he explored that excited remark as to the practicability of constructing a line. A glance at the map will at once show the region he visited. It is the "unknown country" about which the croakers say so much. As the entire line of Russo-American Telegraph has been explored, surveyed, and the route located, and a considerable portion of the line constructed, the day draws near when the wires will flash intelligence from one continent to the other with as much ease as they now send it from time to time.

TELEGRAPHY.

WILL lightning on thine errands go?

Was asked of Job. He didn't know—

He neither answered yea nor nay;

He didn't know, and couldn't say.

Had it been asked of Solomon,

Though unco' wise was David's son,

He would have said: "It can't be done;

What has been may be, but I wot

What never has been done, cannot."

But now what would the wise man say,
I ask, if he lived in our day?

When messages are daily hurled

With lightning speed half round the world:

For since telegraphy had birth

"Its lines are gone out thro' the earth,"

And tho' it can't the ocean leap

It finds a pathway 'neath the deep,

While Shakespeare's words are myth no more

"Girdling the world in half an hour!"

Solomon's words no doubt were true:

"Under the sun there's nothing new,"

That is, he meant new in his day;

But now, what would the wise man say?

I know in fact what might be said—

"Since then, I guess, you're gone ahead!"

Leaving Galileo, Newton, others,
Their modern scientific brothers,
And Franklin, whose skill soared so high
As to fetch lightning from the sky,
I come at once to *Samuel Morse*,
The first who tamed the lightning-horse
So that the creature may be ridden,
Or harnessed up to do our biddin'.

From tiny springs great rivers flow,
Gigantic oaks from acorns grow,
So, in the smallest things may lie
Germs of important destiny.

"The pen is mightier than the sword,"
And upon one short written word
A nation's fate may be suspended
And on it life or death depended!

So when telegraphy at first
Upon a wondering nation burst,
Who could foresee it would so soon
Prove to the world so great a boon?
But lo! its power has proved since then
The magnet mightier than the pen!

Various the instruments, and I
Might tell their *modus operandi*;
Suffice it, from the paper dinting
Up to the climax of plain printing
Telegraphy has not yet gained
Perfection, yet much is attained;
For great improvements mark its course
Since first brought out by *Samuel Morse*,
And if not 'mong the "fine arts" now,
It is a fine art—any how.

But much advantage will accrue
And it deserves much credit, too,
In reading simply by *the sound*;
Many adepts at this are found
Among our smart young men, who read
And write, with all but lightning speed,
And some by constant practicings
Have done incredibly "big things."

One operator in his seat
For six long hours performed a feat—
Received and sent without one break
Three thousand words, "and no mistake."
If any one his name requires
It is immortal as the *Weirs* (wires),
Far as the wires shall reach his name
Shall too be telegraphed by fame.

And I could here record much more
About the U. S. A. Tel. corps.
How at his instrument snug seated
Some operator has defeated
The rebel plans, and more than twice
Saved a brigade by his "advice;"
By timely telegrams dispatched,
The rebel hosts were oft outmatched.

For hours I could its deeds unfold,
And then a half would not be told.
But I'll detach—some future day
I'll give another—a re-lay!
'Tis 9 o'clock, I'll douse the light,
And all O. K., good-night, good-night.

Correspondence.

PROVIDENCE, March 10, 1866.

TO THE EDITOR OF THE TELEGRAPHER:

ONE thing which we seem to be in need of on the American Line in this District is a system of signals to be used by operators as are used south and west of New-York, and on a larger portion of the lines throughout the United States. I have often thought what an excellent idea it is of each operator having a "sig" of his own, so that he may be distinguished from another. I believe that wherever this system of signing exists there is less wrangling and quarreling, and, in fact, a better feeling all around than where it does not. There is something sociable about working a line when one knows who he is dealing with. I believe, too, operators, as a class, will say provoking things under the office signal which, were they obliged to sign, they would be heartily ashamed to have attributed to them. Some writer has remarked that a man, naturally quiet and non-communicative, will, when blindfolded, say twice as much as under ordinary circumstances. I don't know how near correct the assertion, but I think it is something so with operators. They will talk maliciously, and be very overbearing sometimes, but I have noticed they were those who do not make a practice of signing, and who feel that there is no means of learning who it is, further than they are in a certain office. In some instances officials have deemed it expedient to issue orders relative to this subject, directing that no operator shall give O. K. to a message until he gets the sender's private signal, and in turn the sender does not consider his message "O. K." unless followed by the receiver's "sig."

Perhaps the much-esteemed and very worthy engineer of the company will resort to this measure when he becomes convinced that such an arrangement would bring about a better feeling among operators. And I would ask the operators in this District to co-operate with me in trying to bring about a reform in this particular.

Mc.

CHICAGO, March 18, 1866.

TO THE EDITOR OF THE TELEGRAPHER:

It will be well for managers and superintendents of lines to keep their eyes open to J. C. Braidwell, alias J. C. Hargrave, alias A. A. Hargrave, who came to Chicago about the 15th of January, bearing a letter of recommendation purporting to be from a superintendent of Montreal, Canada. The Ill. and Miss. Company being at the time in want of just such a man as his letter showed him to be, immediately secured his services, and in a few days sent him to Davenport, Iowa, as manager. In the meantime circumstances occurred which led them to believe all was not right, and in answer to a letter the superintendent in Montreal stated he never gave the letter purporting to come from him, and also stated it was a forgery, that Braidwell was a swindler and confidence-man, and if he remained in this vicinity he would be arrested for crimes which he had committed in Canada.

This caused the Company to relieve him from Davenport, when it was found he had forged two drafts, which had been paid. The banks are now after him, with a prospect of catching him.

It will be well for District Directors and members to be on their guard, as he claims to be a member of Harrisburg District, and also that he was a delegate to the first Convention.

[We learn Hargrave is now in jail at Davenport.—Ed.]

LELAND, Ill., March 23d, 1866.

TO THE EDITOR OF THE TELEGRAPHER:

I SUBMIT to your approval and that of the telegraphic fraternity the following alphabet, which I think will compete favorably with any which has yet been published, for naturalness of form and speed of transmission. If any "lightning jerker" doubts the fact, let him take his key and practice it a few minutes. I make nine changes in the letters and one in the numerals, all commencing on the same stroke as the present alphabet.

As telegraphy advances, it will be necessary to use punctuation, and I therefore give the points of the alphabet now in use, with some changes and a few additions.

ACCLURIO.

A	—	T	—		
B	...	U	—	;	
C	...	V	—	:	
D	—	W	—	.	
E	.	X	—	?	
F	—	Y	—	!	
G	—	Z	—	Apos'	
H	...	&	—	"	
I	..	1	—	—	Dash
J	—	2	—	()	
K	—	3	—	‡	
L	—	4	—	E	
M	—	5	—	"	Ditto
N	—	6	—		
O	—	7	—		
P	—	8	—		
Q	—	9	—		
R	—	0	—		

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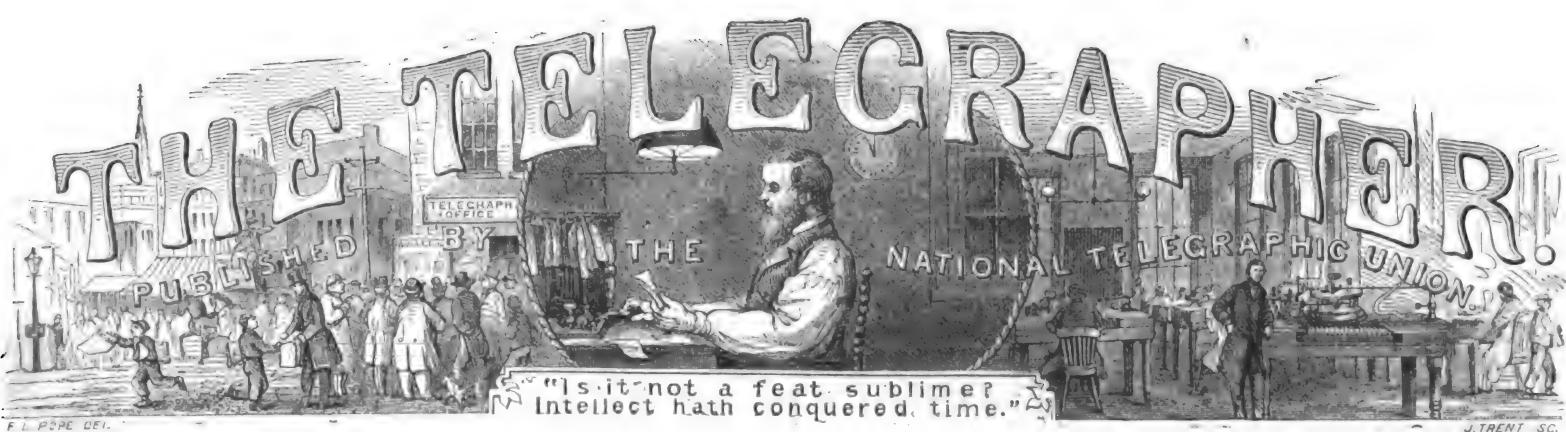
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"PISSISTRATUS."

BY M. K. T.

THE Athenians seem to have been governed by better principles in their public conduct than those which influenced them in the days of their prosperity since the restoration of their Government by Thrasybulus, and the return of peaceful occupation, of art, and literature, of commerce, and agriculture, and sustaining their independency. Assisting distressed states, and mediating conflicting ones, they afford an example of moderation and national dignity never before exhibited. Their greatest war was occasioned by the constant laws, slanders, and unprovoked attacks upon a colony who were the founders of the country. And after the blood of millions had been shed, they were now at peace.

In Greece there existed a class of men, who by their profession were termed Brass Pounders, and by their machinations could enlighten their fellow-men throughout the country. In consequence of not giving general satisfaction, and being negligent in their duties, there sprung up a feeling of opposition, and soon there was a powerful antagonists called Peloponnesians, who by their perseverance arose as high in the estimation of the people as Mount Ossa. At that time there were two different bodies working to destroy each other. The old body we call Athenians, as the story lies in Athens. The Athenians were governed by men of ordinary talents. Among the prominent ones was one known by the appellation of Pissistratus, whose descendants came from Gomorrah, and his self-appreciation, discoveries, improvements, etc., stand as high as an ordinary mole-hill. At the time of our story he was appointed to the command of a body of soldiers called Aristocratesians, and at the call of his country rushed with his body of warriors to the field of battle. Upon his return from the field, the Oracle promoted him for meritorious conduct.

The Brass Pounders were reaping a large harvest, since the body of Peloponnesians arose against the Athenians, but eventually there existed a feeling of kindness, and through pomposity of the leaders of the different tribes, they concluded to become one body in feelings, principle, and good-will, and agreed to stand together to alleviate the suffering of their fellow-men, as long as God would give them life. Having been received so kindly by their fellow-workmen, and being so far distant, they were obliged to write on tablets, to give expression of their views, sentiments, and to cast a feeling of content

throughout the land. In order to have a writer it was decided to appoint a man of religious principle, superior mind, endowed by nature with the faculty of pleasing all. After some difficulty they found an eminent man named Harmodius, who belonged to the brotherhood of Brass Pounders, and had made many exertions to promote the happiness of all. He succeeded well for a time, and was accustomed to admonish his brothers from wrong to the paths of virtue. He loved his God, and was bitterly opposed to perpetual labor, dissipations, and all things that cause many men remorse, and hasten them to the "undiscovered country we know not of." He advocated the present law of the Bible, and believed in rest on the seventh day. For his good advice he was to receive so many marks of silver, and was allowed to give free expressions of his own mind without consulting any one. Now it happened that in the time of the Peloponnesians that Brass Pounders were in demand, and both bodies of the Athenians and Peloponnesians were tempted with many marks of silver to leave one and join the other. It caused great trouble to the leaders of the different bodies, and with great foresight, discretion, and self-aggrandisement, which has been characteristic in Pissistratus, he immediately negotiated with Hecuba, and her women, who were about being banished from Troy by the Trojans. She could not be sold into slavery, so banishment would have been her lot, had not Pissistratus invited her to Athens, to assist in creating a feeling of discontent among the Brass Pounders, who were opposed to women. He finally succeeded in causing general complaint, and received the acquiescence of his paid followers. "What was he to Hecuba, or Hecuba to him, that he should weep for her?" The writer of the tablets, Harmodius, was enjoined by the majority to censure the conduct of Pissistratus for introducing women in the profession, and as Harmodius did as he was requested, it caused great dissatisfaction in Pissistratus' camp, and they immediately blamed the writer, as he knew their maintenance would be cut off should they go derogatory to Pissistratus' commands. Pissistratus was a man of an inventive turn of mind, and in consequence of his concealed talents his superiors granted him the privilege of signing his proclamation as Pissistratus, C. E., and as they knew his characteristic so well, they considered it their duty to flatter, not condemn him. He made many improvements in the art of Brass Pounding with the help of other men's labor, and caused his name to be emblazoned thereon.

It so happened that Harmodius, the writer, caused a feeling of discontent in the camp of the Trojans, for his manly and truthful composition. In fact, the Trojans were not alone with their denunciations, as a tribe south-west of them, were also opposed to his writing, as he held "a mirror up to nature." At the camp of the Trojans they caused a tablet to be written, soliciting a removal of Harmodius on account of his individual expressions, and caused it to be sent into the camp of the Athenians and Peloponnesians to gain strength, but the latter bodies repudiated it, and through the instrumentality of an Athenian herb doctor it was returned without comment, but ac-

companying it was one of similar import, but in milder language, praying for the removal of the tablet-writer. The Trojans having sent the tablet to Tellus for presentation and approval of the Athenians and Peloponnesians at their next council, it was requested that it should be confidential until read before the Assembly. Harmodius, hearing of the arrival of the tablets, proceeded to Tellus, and respectfully demanded a perusal—which he was entitled to—with the intention of ascertaining the charges against him, and, in case of necessity, deny the allegation. What was his surprise when Tellus informed him that it was the Trojans' wish that no one should be allowed to read the tablet until brought to the gaze of all, and Tellus said their wishes should be gratified. When it was read to the Assembly by Tellus how humiliated must have been Harmodius when, after the rendition of the Trojans' request, there was one with the same principle handed for approval and originated with the Athenian clique condemning him. The question is how the Athenians had access to the tablet from the Trojans held by Tellus, to compose one of the same strain and with the same end. We know not. It was supposed to have been in the possession of Tellus, as he informed Harmodius that no one should read it until presented to the Assembly.

Historians have failed as yet to discover how twenty-three Athenians ascertained the sentiments expressed by the Trojans. Time alone will unravel the mystery. The difficulty, it seems, was that the Trojans were anxious to have the organ of the Brass Pounders removed from Athens, and given to them at Troy. The Athenians were for removing Harmodius and to appoint one Codrus, older in years and in experience. This Codrus was employed by the Athenians to signalize ships of war, when seen approaching the coast. He was paid by them, and was obliged to carry out their laws and rules. One of the Athenian chiefs, knowing that more influence could be gained by placing Codrus in Harmodius' stead, resorted to means, through his subordinates, to invite a remonstrance to be given to the head in power praying for Harmodius' removal. They succeeded in a measure, but many of the endorsers of the chief repudiated their mark, and historians say that one of the Athenians, who had given his consent, afterwards admitted that he knew from whence he derived his living, and on that account he was obliged to submit, adding, were he independent, he never would have allowed his conscience to smite him for injuring his fellow-man, "Fronti Nula Fides." Had the chief gained his point by "Dues Ex Machina," he would then have been head of the subordinate Brass Pounders, and they would have been obliged to act with him, to think with him, and to feel as he felt. Men with ordinary foresight could have warned their brothers of the danger they were led to, had they not acted with compulsion. Some men's ambition have carried them far from principle, and to reach the tower of fame they often destroy the foundation. Pissistratus' great ambition was for fame. His actions show his capacity, first in discovering what was best to be done, and last in doing it, or making others do it.

Harmodius, who supported himself by the labor of his hands, and having few wants, easily supplied them.

THE TELEGRAPHER.

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5. You ask "what legislative securities are necessary for protection?" I answer, all the States have enacted laws protecting the property of telegraph companies against the acts of malicious persons; but the fact of the lines being declared Government *post roads* or highways would give all the protection desired. During our conversation on the subject of establishing a system of telegraph for the Government, the question was raised by you, where could the authority be found justifying an appropriation by Congress for the purpose; and upon an examination of my books, I observe that Mr. Chappell, from the Committee of Ways and Means of the House of Representatives, made a report on the 3d day of March, 1845, in compliance with a resolution of Congress instructing said committee to inquire into the expediency of reporting a bill to extend the Government line of telegraph from Washington to New-York. I therefore most respectfully refer you to that elaborate and far-seeing report on the subject. I have the honor to be, very respectfully, your obedient servant,

HENRY J. ROGERS, Telegraphic Engineer.

HON. W. DENNISON, Postmaster General.

ALBANY, April 24, 1866.

SIR:—I have the honor to acknowledge the receipt of your favor of the 16th instant, referring me to the speech of Hon. B. Gratz Brown, made in the Senate of the United States on the 23d of February last, in explanation of the proposition for the Government to establish telegraph lines to be used in connection with the Post Office Department, and requesting me to inform you what explanation, if any, I may wish to make on the references of Mr. Brown to my work, "The History, Theory, and Practice of the Electric Telegraph," published in 1860, and also whether my estimates of the construction and maintaining of telegraph lines, as quoted by the senator, are, in my opinion, reliable as a basis for estimates for such construction and maintaining of telegraph lines at this time; and if not, what difference in the estimates should be now made.

You also do me the honor to add that you will be greatly obliged for any suggestion I may have the leisure to make to you on the general subject covered by the Senate resolution referred to.

In reply to the above inquiries, permit me to remark that the quotations from my work embodied in the speech of the Hon. Mr. Brown were doubtless made after a cursory examination of its contents, and convey a very erroneous idea of the subject treated upon by it.

The first statement which he makes, citing my authority, is that the telegraph companies "will let no one but the Associated Press, another giant monopoly, send any special despatch or news to any paper except from Washington or Albany."

This statement is entirely incorrect, and is nowhere made in my book. Mr. Brown doubtless derived his impression from a misapprehension of the last paragraph on page 386, which is the conclusion of an article entitled "The Associated Press of the United States," and is as follows: "By the rules of the Associated Press, no journal can receive an exclusive dispatch from any other points than Washington and Albany." This paragraph was written in 1859, giving one of the rules which the members of the Associated Press then imposed upon each other for their mutual benefit, and had no connection whatever with any telegraph company, or with any newspaper not belonging to the association. The rule became

inoperative on the breaking out of the rebellion, and has not been in force since. It is scarcely necessary to say that the enforcement of such a rule by any telegraph company would be not only contrary to law, but manifestly against its interest. One leading object of all telegraph companies is to increase the business of their lines, and they have always courted the patronage of the press in every part of the country by reducing their charges to the minimum rates and making every effort to meet the requirements of these important and valuable customers.

Referring again to Mr. Brown's speech, in which he states that "it was estimated in 1861 that there were 50,000 miles of telegraph in the United States, and that there has perhaps, been no very extensive addition made since then, except the line to the Pacific—say 2000 miles," permit me to say that the number of miles of electric telegraph in operation in the United States in 1859 was upwards of 50,000, and that the increase in the past seven years has been very great. Two companies alone, the American and Western Union, have over one hundred and ten thousand miles of wire in operation, and other lines, belonging to rival and connecting companies, will swell the aggregate to more than three times the amount estimated by Mr. Brown.

The next quotation from my work gives a portion of a paragraph estimating the cost of constructing lines at \$61.80 per mile, but omits the conclusion of the paragraph, which is as follows: "This is about the cost of construction of a majority of our lines; but if built as they should be, they would cost \$150 per mile."

(To be continued.)

Completion of the Telegraph to Victoria.

[From The British Colonist.]

THE public were anxiously awaiting yesterday the expected replies from President Johnson, Secretary Seward, and Minister Bruce, to the complimentary messages forwarded on Tuesday, but nothing had been received from either of those magnates when the office closed last night.

A number of telegrams, in addition to news reports, arrived during the day from British Columbia, San Francisco and elsewhere. The first private dispatch from the East was received by the Hudson Bay Company from Washington dated the 24th. Greeting was sent to the Hon. Schuyler Colfax, whose visit to this city last summer is cherished with the most agreeable recollections, and to the Vice-President of the Telegraphic Company. The following replies received from the Mayor of San Francisco, the British Consul, and Mr. J. Mora Moss, Vice-President, breathe a spirit of good-fellowship and a magnanimity of sentiment that cannot fail to rivet the ties of amity between the people of the two countries.

SAN FRANCISCO, April 25, 1866, 11 A. M.

To His Excellency Governor Kennedy:

Message received, and I heartily congratulate you on behalf of the British residents here. I have much pleasure in reciprocating the good wishes you express for the prosperity of both countries.

CHAS. MASON, Acting Consul.

SAN FRANCISCO, April 25, 2:20 P. M.

To the Mayor of Victoria:

San Francisco sends cordial greetings to her sister Victoria, and congratulates her most heartily upon the accomplishment of an enterprise which cannot fail to redound to our mutual benefit. H. P. COON,

Mayor of San Francisco.

VICTORIA, April 25.

To J. Mora Moss, Esq., Oakland, Cal.:

Have wired the tail of the British Lion to the left wing of the American Eagle. They work peacefully in harness.

(Signed,) R. R. HAINES.

REPLY.

OAKLAND, Cal., April 25.

To R. R. Haines, Esq., Victoria:

I congratulate you on your success. I only hope it

will be a stronger bond of friendship between two great nations, whose feelings ought always to be in harmony.

(Signed,) J. MORA MOSS.

LYTTON, April 25, 1866.

To The Daily British Colonist:

All Lyttonites congratulate you upon telegraphic union. The lakes are open to Big Bend, and the news is good. We are now open for union of both colonies—strongly desired.

LYTTONITES, B. C.

A DISSENTING VOICE.

[From The Hartford Courant.]

ANOTHER "telegraph contest" came off yesterday, resulting in favor of the same party who was victorious at a previous contest—Kettles, of Fall River. It is proper to explain that these contests are not such wonderful affairs as some of the papers would make them. They are simply "boys' play," none of the more experienced operators participating in them. Perfection in telegraphing does not consist in speed alone, there being several requisites of equal if not greater importance, and should other contests take place, it is hoped they will receive due weight in the decisions of the judges. The following protest was issued by operators in this city yesterday:

AMERICAN TELEGRAPH OFFICE, {
HARTFORD, May 31, 1866. }

W. R. PLUM, President:—As operators belonging to the fraternity, we beg leave to offer our protest against the demoralizing influence of these contests, for speed in writing, believing that as they are at present conducted, i. e., simply in relation to speed, ignoring other points of beauty, and especially of utility, their tendency is to lower the standard of operating rather than to elevate it.

Having observed in the contest to-day that the good, reliable writing, so necessary to the success of the operator, was almost entirely sacrificed to speed, we cannot deny ourselves the pleasure of hoping that in future the basis for the decision of the judges shall be something other than mere speed alone, and that at least firmness, steadiness, accuracy, uniformity and punctuation shall enter into the requisites of a finished operator.

Respectfully,

THE OPERATORS OF HARTFORD OFFICE.

A Rejoinder.

SOME of the Hartford operators seem to feel a little sore over the success of Kettles, of Fall River, and Mr. Burnes, of this city, and in a note in *The Courant* do both of these gentlemen injustice. We have received the following note from Mr. Burnes to the Hartford operators, which we publish for the benefit of those interested in the contest:

WORCESTER, June 8, 1866.

To the Hartford Operators:

GENTLEMEN:—Inasmuch as you have thought proper to convey to the public the idea that Mr. Kettles' sending at the last contest was burdened with imperfections, and well knowing "as we do" that the Morse Alphabet is such that the least imperfection creates an error, and with the idea of satisfying the public beyond question of the error of your *Hartford Courant* article, and thereby to rescue the Champion Telegraph Club from the odium you would heap upon it, I am willing to offer any wager that I can receive from one hundred to five hundred words of your own choosing from Mr. Kettles, without a break. He to send as rapidly as he did at our last contest, and that my copy will be legible, you to be privileged to select two of the three judges.

Yours respectfully, P. H. BURNES,

Night Press Report Operator,
American Telegraph Office.

CONGRESSIONAL PROCEEDINGS.—Mr. Bidwell (Cal.) introduced a bill in the House, on the 18th ult., to encourage the construction of a telegraph line between the State of California and the Territory of Idaho, which was read twice and referred to the Committee on Public Lands.

THE HISTORY AND PROGRESS
OF THE
ELECTRIC TELEGRAPH.
(Concluded.)

THE earth was not used as a part of the circuit, but two wires were used to complete the circuit. At what time this complete metallic circuit was abandoned I cannot say, probably very soon, as the escape would very soon teach the managers that they were using the earth for a conductor in spite of themselves. The electro-magnets on the early Morse instruments were huge affairs, very sluggish, and required large batteries to work them, and it was found that telegraphing was a very uncertain business. But Prof. Morse, and his associates Amos Kendall and T. and J. Smith, were men of energy, and in their hands the telegraph gradually improved and became somewhat more reliable and useful. Perhaps the man who did most to improve the working and management of lines in this country was William M. Swain. He was Editor of *The Philadelphia Ledger*, and was appointed president of the Magnetic Telegraph Company in 1849 or 1850. He found very little system in the management of the business and the lines in a wretched condition. Up to that time dispatches had never been sent direct from Washington to New-York, though often attempted. This failure was probably owing to the bad insulation and the imperfect manner of joining the wires. To make himself thoroughly acquainted with the condition of the lines Swain walked the whole distance from Washington to New-York. For a man weighing two hundred and fifty pounds to do this required pluck, and to organize the business of telegraphing required capacity, and these Swain had in abundance. He soon infused new life into the business, put the lines in thorough order, and introduced system into the business of telegraphing.

Too much credit cannot be given Prof. Morse for the part he has taken in developing the telegraph in this country. For his persistent efforts against obstacles that would have discouraged most men, to establish a practical telegraph, and his final success, he deserves the admiration and gratitude of his countrymen; but if we look to discover what he invented I think we shall find that he invented very little or nothing at all. The electro-magnet was discovered by Sturgeon, the fine-wire magnet by Prof. Henry, the local circuit also by Henry; the paper moved by clockwork had been used in many previous telegraphs and for other purposes. The alphabet was invented by Swain many years before, though not with a view to its being used in electric telegraphing, and the bringing together of all these previously invented parts and combining them for the purposes of telegraphing was done by Dr. Charles T. Jackson, of Boston. I have a precious relic, and one which to every telegrapher should be sacred, it is the first electro-magnet ever used in telegraphing and formed a part of the first Morse telegraph ever made. This instrument was built in Boston, by Dr. Jackson, in 1833, and was shown by him to Prof. Morse in 1834. No local circuit was used. The characters were designated by holes pricked in the paper by a point on a lever worked by this magnet. The paper was ruled transversely, and the letters were made by prickling one or more holes between two bars, or by omitting some bars entirely; thus A might be indicated by one hole between the bars, B by two holes, C by two holes, then omitting a space, then prickling another hole in the third space, etc.

This magnet was made for Dr. Jackson by Pixii, an instrument-maker of Paris, in the summer of 1832, and was on board the Sully when the famous conversation took place, during which Prof. Morse, as he states, conceived the idea of telegraphing by electricity. Dr. Jackson also had with him three thousand yards of fine silk-covered wire and two elementary batteries, and when he asserted that by means of a telegraph such as he had been suggesting, news could be sent from Boston to New-Orleans

in a second, and the assertion was met with some incredulity on the part of some of the passengers at the table, for they were at dinner, he offered to arrange an apparatus and prove what he said was true so far as the three thousand yards of wire were concerned, providing sufficient sulphuric acid could be procured to charge his batteries. The surgeon of the vessel overhauled his chest, but could not find the necessary acid, and the exhibition was not made. Abundant evidence could be brought forward to show that Dr. Jackson, and not Prof. Morse, was the real inventor of the electric magnetic telegraph, but no more need be said upon that point here.

But the history of the Morse telegraph, so far as it relates to the inventor, is so fully and fairly stated in Prescott's "History of the Telegraph," that I will refer all those who desire to know more upon this part of the subject to that book.

The next telegraphs which claim our attention are those of Alexander Bain, the most important of which the chemical telegraph, has been explained to you in the lecture on "Practical Telegraphy." Bain also invented a printing telegraph. It printed with considerable rapidity, and at both the sending and receiving stations, and required no attention on the part of the operator at the receiving station. The mechanism was very ingenious, and it is reported to have worked well, but it had the great defect of not being successful. Wheatstone's telegraphs were well established, and although Bain's chemical and printing telegraphs were superior, the monopoly was too strong for him, and he could not get his telegraphs adopted. House fared no better in England several years later, with a printing telegraph infinitely superior to Bain's. Bain also invented a telegraph by which as many as five thousand words an hour could be transmitted. This was a modification of his chemical telegraph, the modification consisting in the apparatus at the sending station only. Prof. Wheatstone afterwards made some improvements in this method of sending, by which it is contended that sixty thousand words per hour can be sent. Bain also invented a magnetic telegraph, in which the letters were indicated by dots and dashes written with water upon a band of India-rubber. The writing was very distinct, and disappeared before the same part of the band came again under the marking point. By this means the expense of paper was avoided. Like his chemical telegraph it was perfectly noiseless.

One characteristic of Bain's chemical telegraph has not been alluded to; that is its capacity for secrecy so far as the receiving station is concerned, or so far as either station is concerned, if the sending process is done by means of the perforated paper process. This characteristic has also been improved upon, as we shall see by-and-by. Most of Bain's telegraphs were invented between 1840 and 1845. In 1845 Rev. Henry Highton, of England, invented a telegraph in which he used electricity of high tension and designated the letters by dots or rather by holes perforated in the paper by the spark. Electricity of one kind perforated the upper row of holes, the other kind the other row. The next year Mr. Highton brought out his gold leaf telegraph, in which Voltare's electricity was made to deflect a strip of gold leaf placed in the circuit. This telegraph worked so well that it was purchased by the *Electric Telegraph Company*, not to use, but to prevent any other company from using it. The House telegraph, completed in 1846, is a marvel of mechanism. To attempt to give verbally any satisfactory description of such a machine as the Hoe printing-press, or the House or the Hughes printing telegraphs is useless. I can only refer those who have a curiosity to understand those wonderful machines to the machines themselves, assuring such that, after the most thorough examination, they will understand those machines but little better than before. Were I to attempt to describe and explain those printing telegraphs I should speak of the type-wheels, the cylinders, air-pump, valves, etc., the only result of which

machines, and that I can assure you of without so much waste of time. The great power of execution of the House telegraph is astonishing as its mechanism is wonderful. It will transmit with perfect accuracy three thousand words per hour, which is about one-third faster than the Morse and is twice as fast as Wheatstone's telegraph. The objections to this telegraph are the great cost of the instrument and great expense in operating it. It requiring heavy batteries and the labor of an extra man in receiving. The perfection of the House telegraph was such that it was hardly reasonable to expect that any improvements in printing telegraphs would ever be made. But in 1855 David E. Hughes, of Kentucky, produced his telegraph, which differed in many points from the House and in some particulars excelled it. It requires but one electric impulse to print a letter, whereas in the House it requires an average of seven. It prints without the stopping of the type-wheel, and requires but a small part of the battery necessary to work the House instrument. By it one terminal station can send dispatches to the other without intermediate stations being able to read them, and two dispatches can be sent at the same time over the same wire in opposite directions. (?)

In practical use the two last-mentioned capabilities of the instrument have not been employed. The extreme sensitiveness of this instrument, which at first was thought to be one of its greatest advantages, proved to be a serious disadvantage, and it was found necessary to reduce it. In the first printing telegraphs the pendulum was employed to regulate the movement and keep the two instruments running at the same rate of speed, but in instruments of such rapidity of movement as the House and Hughes telegraphs this mode of regulating cannot be used; and so Prof. Hughes regulated his instrument by a vibrating spring. He was a musician, and the law that a given number of vibrations always produces the same musical tone was familiar to him, and he conceived the idea of regulating his instrument by vibrating springs, which should be tuned to any particular note required, which could only be determined for each instrument by experiment. The Hughes telegraph is not so rapid as the House, being but slightly in advance of the Morse in that respect.

We have seen that there are some practical defects in both the House and Hughes telegraphs, and to obviate these Mr. G. M. Phelps, of Troy, N. Y., has combined the two instruments, endeavoring to exclude all that is objectionable and retain all that is valuable in each instrument, and has succeeded, I believe, in producing an instrument which gives better satisfaction than either. This is known by the name of the "Combination Instrument," and is used to a considerable extent upon the American Company's lines.

There is one other whole class of telegraphs so curious and so astonishing in their results that I am not willing to pass over them in silence. They are the Copying Telegraphs, Bain's Chemical Telegraph, Bakewell's, Casselli's Copying Telegraph, by which engravings are copied, Bonelli's Telegraph of many wires. Messages are set up in common type and pass under springs, received on chemical paper, washed and dried, and put into envelopes by the machine, rapidity unlimited. Five hundred dispatches per hour have been sent over a line three hundred miles in length by this telegraph. But this was only with a few wires; by increasing the number of the line's wires the rate of transmission can be increased almost indefinitely. A line using this instrument would resemble a printing-office, in having its corps of compositors to set up the dispatches and deliver them to the operator, who would correspond to the pressman. Neither the sending or receiving operator need necessarily know the contents of the messages they send, any more than the pressman need know the contents of the newspaper he is printing.

Let us now in a hasty review endeavor to show who have been the real inventors of the Electric Telegraph:

THE TELEGRAPHER.

Otto Guericke invented the electric machine in 1658.
Cuneus invented the Leyden Jar in 1745.

Dr. Watson discovered in 1747 that electricity could be conducted through long lengths of wire.

In 1802 Galvani made the discovery which led to the invention of the Voltaic Pile.

In 1819 Oersted discovered that a current of electricity deflects a magnetic needle.

In 1820 Schnugger invented the galvanometer, or multiplier, and in the same year Ampere proposed its use for telegraphing, and did actually invent the needle telegraph.

William M. Swain invented the dot and dash alphabet in 1824.

Sturgeon discovered electro-magnetism in 1825.

Harrison Gray Dyer, of New-York, built the first Chemical Telegraph in 1827, using glass insulators.

Prof. Henry invented the fine-wire magnet and the local circuit, between 1828 and 1830.

In 1831 Faraday discovered magnetic electricity.

In 1832 and 1833 Dr. Charles T. Jackson invented the Morse telegraph.

In 1836 Prof. Daniell invented the constant battery; and the same year Steinbart established the first practical working telegraph.

Cook and Wheatstone established their first telegraph in England, in 1837.

Alfred Vail invented the first printing telegraph in 1837.

Morse established his first telegraph line in 1844.

Bain invented the first valuable chemical telegraph in 1846.

House perfected the first valuable printing telegraph in 1846; and Hughes his printing telegraph in 1855.

Phelps combined the House and Hughes in 1859.

Bonelli established his telegraph in 1862.

We may well feel proud of the part American inventors have taken in the development of the electrical telegraph.

The Morse telegraph is, perhaps, all things considered, the best telegraph ever invented. The House and Hughes telegraphs are infinitely superior to any instruments of the kind ever invented in any other country. We have more miles of telegraph than any other nation; we send more dispatches, and send them faster than, any other people.

In this hasty sketch of the history and progress of the telegraph many inventions of much importance have been passed over in silence, while many others deserving of a more lengthened notice have been merely touched upon. This was unavoidable from the limited time at our disposal. I know how very unsatisfactory so imperfect a sketch must be, and feel that all you will gather from it is that the telegraph is not the invention of a few men, but that many have contributed in building up this, one of the most beautiful and useful of the arts.

[Mr. Stearns illustrated his lecture by drawings on a blackboard, which added much to its interest.—ED.]

ELECTRO-MAGNETIC PAPER-RULING MACHINE.—This invention consists in the novel construction of electro-magnetic striking attachments to paper-ruling machines, whereby the pens may be made to strike the paper on a "head-line" or "head-lines" at any distance from the head of the page or sheet of paper, for the purpose of ruling "down-lines" of any desired length, and, when desired, to strike and rise from the page or sheet at any number of points in its length at different distances from the head and tail of the sheet, for the purpose of ruling "down-lines" of corresponding or various lengths by mere adjustments without the removal or changing of any part of the striking attachment; the rising of the pens as well as the striking movement being controlled by the action of the paper upon a circuit-break which closes and opens the electric circuit in which is placed an electro-magnet by the attraction and the cessation of the attraction of which the pens are caused or permitted to strike and rise.

DISTRICT DIRECTORS.

NEW-YORK.—W. Steinhoff, United States Tel. Office.	"
BOSTON.—H. W. Wheeler, American	"
PHILADELPHIA.—Jos. S. Greene, W. U.	"
BALTIMORE.—J. B. Yeakle, American	"
WASHINGTON.—G. C. Maynard, U. S. Mil.	"
ST. LOUIS.—Kenneth McKenzie, Pac. R. R.	"
CHICAGO.—A. H. Bliss, I. & M.	"
LOUISVILLE.—A. Ellison, W. U.	"
NASHVILLE.—S. F. Van Valkenburgh, S. W.	"
DETROIT.—T. W. Preist, W. U.	"
MAINE.—C. I. Collamore, American	"
BANGOR.	
ALBANY.—A. L. Whipple, N. Y. C. R. R.	"
UTICA.—J. B. Sabine, W. U.	"
ROCHESTER.—J. H. Crane, W. U.	"
CALIFORNIA.—M. Hodge.	
Virginia City, Nev.	
NEW-JERSEY.—J. A. Wright, American	"
TRENTON.	
PITTSBURG.—John B. Stewart, 26 Center ave.	
HARRISBURG.—J. B. Lyndall, W. U.	"
CINCINNATI.—B. B. Glass, W. U.	"
ST. JOSEPH.—W. H. Woodring, Box 1021.	
OMAHA.—Frank Lehmer.	Tel. Office.
INDIANAPOLIS.—Jno. E. Zeublin, Pendleton, Ind.	
TOLEDO.—E. P. Murray, U. S.	Tel. Office.
PEORIA.—D. K. Smith,	"
MEMPHIS.—P. J. Murray,	"
GREENCASTLE, Ind.—J. C. Showerman.	"
CORRY, Pa.—E. Wade, W. U.	"
AUGUSTA, GA.—P. F. Campbell, Am.	"

DISTRICT PROCEEDINGS.

INDIANAPOLIS DISTRICT.—Special meeting of this District, held at Union Depot Office, Thursday evening, May 24th. Meeting called to order by District Director, who stated that the object of the meeting was to either adopt some measure to keep the District up with the old officers, or to reorganize and elect new ones. He said that the District had been going down for some time, that for three or four months it had been impossible to get a quorum together, and that it required some stringent measures to keep the District going. As it was he did not wish to hold the position of District Director, and respectfully tendered his resignation, which was accepted, and motion made that all the old officers be requested to resign, seconded and carried. Resignations handed in. On motion of Mr. Worth, Mr. Zeublin was appointed Chairman. Motion made to proceed to election of officers to fill the place of those resigned. Carried, and election held with the following result: John E. Zeublin, of Pendleton, Ind. District Director; Alfred Brewer, of Indianapolis, District Secretary; W. S. Cone, of Indianapolis, Dist. Treas; Robert G. Worth, of Indianapolis, Local Director. Mr. Zeublin on his election said the honor conferred upon him was altogether unexpected, that his interest in the Union was unabated. He still thought as he always had, since the Union was started, that it was the most advantageous thing for telegraphers that could have been gotten up. That he should use his utmost endeavors to promote the interests of this District, and called upon his fellow-officers to support him in his endeavors. Resolutions were offered to frame some stringent measures in regard to attendance at meetings, collection of dues, fines, etc., but owing to the lateness of the hour they were laid over till the next regular meeting. Adjourned.

BOSTON DISTRICT.—Regular meeting. Director read communication from the President stating that the Executive Committee approved the action of the Boston District in expelling Mr. J. T. Smith for non-payment of dues.

Communications from various Districts in reply to the circular letter of this District relative to THE TELEGRAPHER were read. Also letters from two members of the Boston District, containing suggestions pertaining to the welfare of the Union. The writer of one of these letters was, by vote, requested to write for THE TELEGRAPHER.

Committee of three, Messrs. Upham, Leighton, and Duxbury, appointed to draft resolutions of sympathy for Mr. Gerrit Smith in his recent and bereavement.

Also committee of three, Messrs. Barrett, Brown, and Stover, appointed to draft and present resolution of thanks to Mr. J. B. Stearns for his kindness in devoting several evenings to our instruction and edification. Adjourned.

NEW-YORK DISTRICT.—At a meeting of this District, called for the evening of June 5th, a quorum was not present. No business transacted.

BALTIMORE DISTRICT.—Regular meeting called to order at 8 P. M.

Minutes of last meeting approved.

A communication from A. C. Jones, formerly of Louisville District, in reference to his present position in the Union, was presented to the District by the Director, after the reading of which the chair gave it as his opinion that this District had no jurisdiction in the case, the transfer papers having been lost in transit. No official notice has been received by this District of his having been transferred according to the requirements of the Constitution. On motion, the Secretary was instructed to inform Mr. Jones of the action of the meeting, referring him to Louisville District.

After considerable discussion of matters of local interest the meeting adjourned at 10 P. M.

MEMPHIS DISTRICT.—Regular monthly meeting held May 13th, District Director in the chair.

No quorum being present, on motion, the District adjourned.

May 20. Meeting called to order at 3 P. M. District Director in the chair.

Minutes previous meeting approved.

D. J. Dingman, of Clarksville, was proposed for membership by the Director and unanimously elected.

Committee on procuring subscribers for THE TELEGRAPHER reported having obtained five subscribers, but requested to be retained until next meeting when they could present a more favorable report. On motion, they were retained.

Mr. Spinner moved that for the present the quorum of this District be fixed at five, which was carried.

The meeting then proceeded to the discussion of various local questions relating to the District, and after the passage of an amendment to the By-Laws governing the District, and the transaction of some minor business, the meeting adjourned.

WASHINGTON DISTRICT.—Regular meeting, June 2d. Director in the chair.

Mr. Bender, Secretary *pro tem.* Eleven members present.

Minutes of special meeting held May 27th approved.

Treasurer's monthly report, showing a balance of \$72.27 on hand, received and referred to the Auditing Committee.

Mr. Young, from the committee appointed to confer with the officers of the National Soldiers' and Sailors' Orphans' Home, reported that the offer of the District to work a telegraph line at the Fair to be opened next week, has been accepted, and asked further time to execute the orders of the District, which was granted.

Mr. Clarke, in behalf of the committee to which was referred the Director's report, asked and received an extension of one month's time.

The application of Mr. F. H. Evans, for membership, was taken up, and, on request of the Local Director, was postponed until the next regular meeting.

The Director announced that the names of several members had been reported to him by the Treasurer as being in arrears, and appointed Messrs. Clarke and Hahn as a committee to investigate these cases. Adjourned at 9 P. M.

PEORIA DISTRICT.—Second regular meeting, Sunday, June 3d, 2 P. M.

As two former meetings had been adjourned for want of a quorum, it was on motion of Mr. Geiger, unan-

mously (?) resolved to fine each member 25 cents when absent from regular meetings unless he has a good excuse.

Our meeting day was then changed, on motion of Geo. Thode, from Sunday to first Saturday in each month.

All action upon the subject of THE TELEGRAPHER was postponed until next meeting day; then our little District shall be heard.

All members present excepting two.

Meeting adjourned to meet again Saturday, July 7th, at 7 P. M.

LOUISVILLE DISTRICT.—Regular meeting held June 4. District Director in the chair.

Minutes last meeting approved.

Treasurer's report read and approved.

T. A. Edison presented transfer from Cincinnati District, and was unanimously received as a member of Louisville District.

The death of our late member and very much esteemed brother, William I. Scott, who died very suddenly on the 26th day of May, 1866, at Russellville, Kentucky, was announced by the District Director, and, on motion, Messrs. Warren, Marsh, and Bard were appointed a committee to draft suitable resolutions expressing the deep regret of this District at the decease of Mr. Scott. The following resolutions were unanimously adopted:

"Whereas, Our brother and friend, W. I. Scott, of Russellville, has been snatched from us by an all-wise Providence and taken home to his long rest,

"Resolved, That we feel the deepest sorrow at the circumstances, but know that 'God doeth all things well,' and in his infinite wisdom, knows best when to 'call his lambs to his fold.'

"Resolved, That in losing our brother we feel that 'in the midst of life we are in death'; and know not when we, also, will be called to account.

"Resolved, That we tender our deepest sympathy to his family; and that a copy of the above resolutions be sent to them at Akron, Ohio; also published in THE TELEGRAPHER and *The Louisville Democrat.*"

H. WARREN, E. MARSH, J. H. BARD, committee.

On motion, adjourned.

SACRAMENTO DISTRICT.—Regular meeting N. T. U. held May 6th. Twenty - three members present. District Director Hodge presiding. Meeting called to order.

Mr. Hodge read letter of resignation from Secretary J. W. Brown, which was accepted.

J. S. Urquhart, of San Francisco was elected to fill the vacancy.

Treasurer's report, showing a fund of \$100.45 now on hand, was read and formally accepted.

A. S. Strong was then proposed by Mr. Smith, of Stockton, and a committee appointed by District Director to investigate qualifications.

Names of A. H. Post, W. T. Harned, and John O'Donnell were proposed for membership and elected unanimously.

Messrs. John Henderson and T. R. Lewis, of San Francisco, who are about departing for the North, sent in their resignations, and a reluctant but honorable acceptance was returned them, with the general good wishes of the Union, after which meeting adjourned.

CORRY DISTRICT.—Meeting held on June 6th, called to order 8 P. M. Director in chair.

The minutes of the last meeting were approved, with exception of clause relating to a quorum for the transaction of business. On motion it was amended to read that six members should constitute a quorum for the transaction of business.

The following names were proposed for membership and parties elected: J. A. Wright, F. A. Divency, H. Garner, C. B. Molenaux, Frank R. Smith, W. P. Lucas, Jas. E. Lytle, F. H. McDonnell, G. C. Fuller, and E. Reynolds.

The applications of several members laid over, not conforming with the Constitution and By-Laws.

J. W. N. Gilds, the District Treasurer, tendered his resignation, which was accepted. On motion, a vote of thanks be tendered Mr. Gilds for the faithful performance of his duties as District Treasurer.

On motion, we proceed to ballot for District Treasurer. Carried. And on an informal ballot W. C. Long was unanimously declared elected.

"Resolved, That the New-York District By-Laws be adopted by this District."

Carried.

On motion, the meeting adjourned.

It will not take a very shrewd guess to divine who is the author of the following. Having several times announced the consolidation of the two great corporations under reliable information, and finding we had anticipated the great event, we had come to the decision to say nothing more upon that head.

TELEGRAPH CONSOLIDATION.

"NEW-YORK, June 14.—The American and Western Union Telegraph Companies are about concluding an agreement of union which amounts to a consolidation of interests. The public demand for prompt, uninterrupted transmission of messages, renders it indispensable to get rid of all delays in checking and booking from one line to another. The new consolidation control and operate over one hundred and four thousand miles of telegraph wire, covering all the territory and connecting all the points of importance from Newfoundland to San Francisco and Vancouver's Island. From the latter point, a line fourteen thousand miles to St. Petersburg will be done within a year. Cuba and the West Indies will be connected, and the success of the Atlantic cable in August next is confidently hoped for.

"It is to be regretted that the telegraph business cannot have the lively stimulus and restraint that so favorably effects every other, but at-least five attempts within the last fifteen years, by men of energy and large capital, to build up and sustain an opposition, have signally failed. When the United States Telegraph Company had acquired over sixteen thousand miles of lines, the public looked for the fruits of the opposition in a reduction of rates, but the rates had to be twice advanced to enable the business to support two companies instead of one, the formidable opposition being compelled at last to succumb and sell out at a loss.

"The question seems settled for the present that the telegraph business will not yet bear competition, and against the immense advantages of this combination it would be rash to attempt it. One company can do all the business, and do it cheaper than two can, for two organizations, with a duplicate of officers and employés, must double the expense of doing the aggregate business, and the customers must be taxed to meet the double expense. Let enlarged views govern this mammoth corporation, and let them serve the public promptly, courteously, and as cheaply as they can afford, and the press and the public will be satisfied."

A MAGNIFICENT AURORA.—*The Brooklyn Union* of Feb. 21 says: "At about half-past 11 o'clock last night a most magnificent aurora borealis started up across the heavens and continued for about an hour, forming, with its ever-changing appearance, a most beautiful series of shades of light and hues of color. In the western portion of the heavens a cloud of reddish color spread over a considerable space, while at a little distance from it was a smaller cloud of a greenish hue. In the east appeared a similar phenomenon, the clouds or banks of light being of different colors. Between these two points arose streams of white light, sometimes remaining constant for a few minutes, and then dying away only to be shot back with more than lightning-like rapidity. Then, instead of

continuous streams, there came flashing rays of light in clouds, passing with the swiftness of thought from the horizon to the zenith, where they were lost. In the meantime the colored light in the east and west had changed from its first colors to almost every imaginable hue and tint, until, compressed into one mass, distinguishable and yet conglomerate, appeared all the known shades of color. The light was not strong, but clear and luminous, and died away whence it came, leaving us no wiser than before concerning the cause of the strange phenomena, which in ages past have terrified principalities and nations, and impressed even the sturdy and firm New-Englanders with a feeling of superstition."

MORE ABOUT NITRO-GLYCERINE.

The investigation into the San Francisco nitro-glycerine explosion, recently made in New-York, has developed some curious facts in reference to the properties of that capricious fluid, which insists on exploding when it is not wanted to go off. Tal. P. Shaffner, who professed to be well acquainted with it, declared that it was not ignitable at ordinary temperatures, that in burning it on paper it actually retarded the burning, that he had stirred it with a red-hot iron without explosion, and that concussion even only affected the points of actual contact. Mixed with saw-dust, however, it forms a compound highly explosive. He had tried the experiment of allowing saw-dust to be saturated with the oil for fifteen minutes, when a red-hot iron would cause it to explode. These allegations of Mr. Shaffner were confirmed by Mr. Schutte, who had tried the experiment with sawdust and nitro-glycerine; he had made two layers of sawdust and saturated them with the oil, placing a heavy board with a stone on top. In about two hours vapors were given off. In about six hours it had evolved heat enough to light a match, and two days after, when I removed one of the boards, the sawdust took fire without any external fire being applied. There was about a cubic inch of sawdust and perhaps fifty drops of the oil; using fiber from the Fiber Paper Company, heat resulted in the same way.

It was also shown by Mr. Schutte's testimony that the frozen oil will explode, and that an explosion once took place while the oil was being poured from one can to another, no unusual condition being known to exist, except the possibility that there was turpentine in one of the cans.

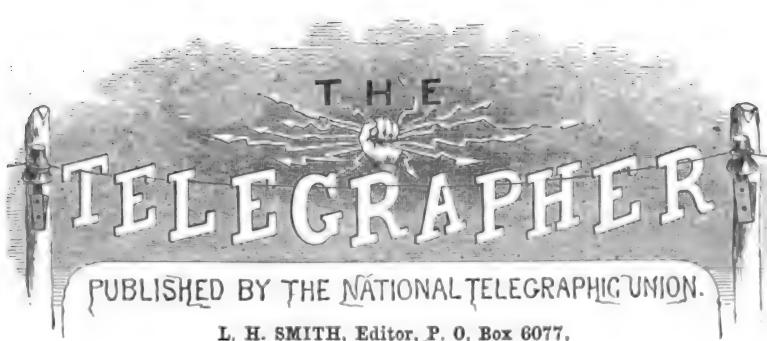
The sum of the testimony thus far seems to be that the oil is sometimes explosive and sometimes not, that it is very difficult to tell when it will explode and when it will not, and that it is a good thing to keep out of the way of.

Electric Forces.

From the N. Y. Polytechnic Institute Proceedings.

DR. BRADLEY referred to his remarks at the previous meeting, that the tangents of electric forces were in proportion to the strength of the current, and said, upon actual experiments, he found that this rule laid down in our books did not coincide with practical results. He was led to believe that a common helix acted only in one direction powerfully upon the magnetic needle, while its influence ceased or was changed with the deflection of the needle according to its distance from the current. He therefore made a coil or helix so large that the needle, in all its positions, was at an equal distance from the helix, and therefore influenced in the same manner. It consists of a brass disk, on the top of which several needles, made of clock-spring steel, are laid parallel to each other, corresponding to the periphery of the disk, so that the outer needles are smaller than the inner ones, forming a grate of needles. In experimenting with this instrument he found, in a great many experiments, that the rule proved correct, the needle being acted upon in the same manner as it is by the magnetism of the earth, which, by its enormous size, acts evenly upon the compass in all its positions.

THE TELEGRAPHER.



PUBLISHED BY THE NATIONAL TELEGRAPHIC UNION.

L. H. SMITH, Editor, P. O. Box 6077.

MONDAY, JULY 2, 1866.

GOVERNMENT TELEGRAPHS.

SOME people who have enjoyed the blessings of a republican form of government, seem to have a longing for the governments of the old world. The one-man power corrects abuses which, we living under an elected chief, suffer to exist, more because no one seems willing to step forward and take the initiative towards their correction.

We do not purpose writing a political tirade against European forms of government, for we feel confident but few of our readers would be willing to make a change.

In this issue we commence on the first page the correspondence and statistics recently placed before the United States Senate by the Postmaster-General, in response to a resolution requesting information to be furnished, that Congress might take action upon the bill to establish telegraph lines by the Government, to be used in connection with the post-offices. The bill was "killed" by the committee to which it was referred. Some of our readers may say, "Well, if it is 'killed,' what need is there to say anything upon the subject?" We write for these reasons: Some time since, an article appeared in these pages taken from a Newburyport paper, and written by a gentleman who is well-known to our readers, favoring the establishment of a government telegraph, and now we learn one object of the National Telegraph Co., which is now asking Congress for certain rights and privileges, is to turn the vast lines when constructed over to the Government, to be worked in conjunction with the Post-office.

Although the time will surely come when the post-offices throughout the country will be connected by telegraph the same as railroad corporations now connect their several depots, we do not think the monopolizing of the telegraph business by the Government should be tolerated for a moment.

The present management of the mails is cumbersome, circumlocutory and expensive. It is a wonder that, considering the vast amount of matter which passes through the mails, more is not lost. While letters are pretty well cared for, excepting a due regard for speed, newspapers are handled with provoking carelessness, as every publisher and many of our subscribers know. A paper, although its money value may be small, is of sufficient value to demand careful and prompt transmission.

A letter can be sent from this city to Washington or Chicago, even before one can be sent from here to Brooklyn, which lies just across the river. This city contains more than a million of people, and Brooklyn boasts a population of over three hundred and eighty thousand inhabitants, yet it frequently takes from two to three days for a letter deposited in an up-town box to be delivered to the party addressed in the peaceful city over the water. Would private enterprise tolerate such slow-coach work? We aver not; nor would the business public, if it were possible to take the cumbersome machinery from the control of the Government.

If the control of the lines in this country should pass into the hands of the Government, we could expect but little better treatment. The word *dispatch*, which the word telegraph indicates, would be changed to the word slowness. If private enterprise were allowed to compete with the Government, the taxpayers would have to pay a pretty sum to maintain an expensive toy. One good would be derived by the change, for the public would have secured to them that which they have never yet enjoyed—cheap rates.

A Government telegraph in this country would become a vast political machine of the most corrupt sort. How long do our readers sup-

pose the bankers, brokers, and heavy commercial houses in this city would tolerate the Post-office manner of transmitting their ever-important business?

In France and Italy, and other European countries where individuals are not allowed to exercise their rights, the Governments control, and always have controlled, the telegraph, and to those who have had no other experience it may seem satisfactory. Late news from England brings us the information that *The Times* is urging the adoption of the telegraph by that Government, an event which we hope may never transpire, either here or there.

TELEGRAPHIC MISCELLANEA.

OWING to a necessary absence of two weeks during last month our last issue was not only delayed four or five days, but was robbed of several items of interest which, appearing in this issue, will seem stale news.

MR C. B. BURCH, of Lackawaxen, Pa., is hereby informed that John D. Congdon, for whose address he inquired in a recent issue of this paper, is now Superintendent of the Union Pacific Railroad line at Omaha, Neb.

THE Indianapolis District seems bursting into new life under the energetic guidance of its new Director who, it will be remembered, was its delegate to the Chicago Convention. Without knowing the action of some of the Eastern Districts, its members conceived the idea of authorizing the Director to appoint at each meeting some member to prepare a dissertation upon some philosophical or other subject for the next following meeting, and to have not to exceed ten minutes in which to deliver it. This is done to vary the exercises. The Director, Mr. Zeublin, gives the inaugural of the course at the meeting to be held early this month. Subject—Electricity; its Application and Influence.

We this morning (June 20th) received through the mail the following brief note:

"I am off for Canada, also matrimonial felicity to-day in 'double harness,' driven by the Rev. Alex. R. Thompson."

Upon further search we discovered two cards "which explained the whole thing." Stanley McNeider "has been and gone and done it." The above-named parson has joined him to his idol, for on the 18th of June he (that is Mac) was joined "for better or for worse" to Miss Jennie C. Wright (whether of this city we know not), and has run off to Canada.

We regret losing Stanley from our select circle of "old bachelors," but forgive him this sudden start, and wish him all the joy he can find between now and the day he goes to cross the "dark river."

MORRIS H. GOE, a second-class sound operator of unexceptionable sobriety and morality, is in want of a situation. Apply to the Director of the Indianapolis District.

GEORGE W. BALDWIN, a member of the Baltimore District, and an experienced military cipher operator, accompanied General Meade on his tour of the Northern frontier. He was also on duty with the General in the Fenians' Eastport "campaign."

THE Washington District is working a line in the Soldiers' and Sailors' Fair, now being held in that city, operators being detailed for each evening.

PATENT CLAIMS.—55,056.—MACHINERY FOR PUNCHING PAPER FOR TELEGRAPHS.—Edward A. Calahan, Brooklyn, N. Y.:

I claim, 1st, A type-wheel revolved by friction, in combination with revolving stops and keys, and an apparatus, substantially as specified, for punching fillets of paper for composing telegraphic messages as set forth.

2d. I claim the stoppage-bar, 39, escapement, 33, and ratchet-wheel, in combination with the shafts, B' and g'', as and for the purposes specified.

56,441.—GALVANIC BATTERY.—George Lionel Leclanche, Paris, France:

I claim the use in electrical piles of insoluble or slightly soluble salts of copper or other equivalent material moistened with liquid containing a salt in solution capable by its decomposition of rendering the said salts of copper, or other equivalent material soluble as described.

55,541.—TELEGRAPHIC REPEATER.—C. H. Rudd, Sandusky, Ohio:

I claim the posts, G, L, with the spring, M, post, K, and extension of the lever, E, beyond the line of the post, F, F', so arranged as to enable me to use extra force, for holding the relay closed, when said extra power is obtained from the main current, which is unemployed just at the time when needed, substantially in the manner and for the purpose set forth.

55,594.—ELECTRO-MAGNETIC ATTACHMENT TO RULING MACHINES.—E. D. Averell, New York City:

I claim, 1st, The circuit break, consisting of a metallic lever and finger, with a piece, n, or non-conducting material, in the hub of the lever, and a spring, l, or its equivalent, the whole applied and operating substantially as herein specified, in combination with a galvanic battery, or other generator of an electric circuit, and a ruling machine.

2d. The lever, R', and finger, V, applied in connection with the lever, R, and finger, i, substantially as and for the purpose herein specified.

3d. The rollers, Q, Q', applied in connection with the levers, R, R', and fingers, i, l', and adjustable relatively to the cloth, B, and rollers, D, D, substantially as and for the purpose herein described.

4th. The combination of the posts, L, L', adjustable about their axes, the arms, M, M', and the rods, N, N', carrying the foot-pieces, P, P', rollers, Q, Q', circuit-break, R, and lever, R', substantially as and for the purpose herein specified.

5th. The foot-pieces, P, P', carrying the rollers, Q, Q', circuit-break, R, and lever, R', adjustable relatively to the rods, N, N', or other equivalent supporters, by screws, g, g, substantially as and for the purpose herein set forth.

EXTENSION.—8920.—ELECTRO-MAGNETIC ALARM BELL.—Moses G. Farmer, Salem, Mass. Letter-Patent dated May 4th, 1852:

I claim as my invention the combination substantially as herein set forth of the electro-magnet and armature (or its electro-magnetic equivalent) with the falling ball or spring, and the detents, and the lifting cam, or its equivalents, so arranged that when the ball is supported by the armature a slight force only of the electro-magnet is required to trip the ball, which ball, in falling, acquires sufficient momentum to produce much greater mechanical effects than the magnet alone, the velocity of the ball in falling being still further accelerated by the force of a spring, if desired. The power thus obtained I use in the manner and for the purpose herein described.

HUMORS OF THE TELEGRAPH.—A message from Waterbury passed recently over the Franklin line. Owing to some interruption it was repeated at Hartford, and was addressed to Abner L. Ely, N. Y., but came plainly A. B. Nerley.

A correspondent in Cincinnati writes as follows:

"About a year and a half ago a message was sent from Cincinnati to T. A. McCoy, Room 3, 233 Broadway, N. Y. The operator in Pittsburg—a repeating station—received it, 'T. A. McCoyroom, 323 Broadway.' The mistake was discovered before it was sent East, and we had a good laugh over it. This same operator one day, while sending to Cincinnati, came across the name H. O. Groff. Before he finished the name the circuit opened. When it closed Cincinnati requested him to 'go ahead, hog!'

"An ancient and honored member of the fraternity in this same Pittsburg office frequently received 'Esq' as '&Q.' Said he one day: 'Now, I asked that fellow about that, and he said it was right. Just so, I never knew the receiver to 'bulb' a message, for he always claims to have it just as it was sent!'

Some workmen, engaged on a new house, building in the vicinity, happened one rainy night at the telegraph office, and were very much interested at "the thing." The operator, about to receive a message, run the paper in a few seconds; one of them cried out inquisitively: "Won't that paper get wet to-night?"

CHANGES, ETC.—J. D. Thurston, formerly of the U. S. Military Telegraph, is now freight and ticket agent of the C. and Z. Railroad at Wilmington, O.

H. A. Snow has resigned his position as military cipher operator at Newbern, N. C., and is now in Elyria, O.

Brevet Lieut.-Colonels J. R. Gilmore, of Charleston, S. C.; L. C. Clowry, of St. Louis; J. C. Van Duzer, of Nashville; W. L. Gross, of New-Orleans, and S. G. Lynch, of Cleveland, O., assistant quartermasters and assistant superintendents U. S. Military Telegraph, have been mustered out of service.

Alfred Flowers has resigned his position in the U. S. Co.'s Capitol Office and left the business to accept a clerkship in the Treasury Department at Washington.

Thomas H. Sherman, who has for several years been in the American Co.'s Washington Office, and lately chief operator, also late Director of the Washington District, resigned his position and office early in May last, for the purpose of rustinating for a season at his father's home, Bucksport, Me.

W. H. Clarke, late assistant manager in the American Co.'s Washington Office, resigned his position on May 31st, and is now in the same company's N. Y. Office. Mr. Marean, late night manager, succeeds Mr. Clarke.

W. H. Clarke, formerly operator at the American Co.'s "TW." Washington Office, succeeds Mr. Sherman as chief operator.

J. A. Swift, formerly operator at the last-named office, has been transferred to the Maine Office of same company.

Charles E. Pomeroy, for a year past in the employ of the U. S. Company in this city, has taken a vacation from telegraphing, and has gone home to Geneseo, Ill., to pass the summer.

The following comes to us from Raleigh, N. C.:

"**MR. EDITOR:**—Won't you please publish the words Willy Kettles wrote? We want to set them to Southern music.
J."

GENERAL E. S. SANDFORD, President of the American Telegraph Company, sailed in the steamship Persia on the 13th ult. for Europe, to make arrangements for making telegraph connection with the Atlantic telegraph when it shall reach our shores; and also to push forward the work of laying a submarine telegraph from Florida to Cuba. It is proposed to continue the line from Cuba to the coast of South America, and have the whole work completed this fall. The telegraphic wire already stretches from London to the Amoor River, and from the Atlantic to the British Possessions on the North Pacific.

NOTICE!

There are charges pending against Messrs. C. D. Hammond, E. A. Scott, J. D. Tinney, and S. B. Roberts, in the Washington District, N. T. U.

Any person knowing the address of either of the above members will oblige us by forwarding it.

W. H. H. CLARK,
J. F. HAHN,
Committee of Investigation.

OFFICE U. S. MILITARY TELEGRAPH,
WAR DEPARTMENT,
WASHINGTON, D. C., June 21st, 1866.

TO THE EDITOR OF THE TELEGRAPHER:

I SEND you the following, which I believe to be a correct translation of the original cipher, a copy of which is published in No. 30 of THE TELEGRAPHER, but which contains a few errors, probably printers' "bulls," occurring undoubtedly as do a large proportion of operators "bulls" from misreading of "copy." I suppose you are in possession of the "key" to the cipher, and do not ask or expect "experts" to explain how the translation is obtained, for this class of ciphers cannot be translated without first finding a key.

Very respectfully yours, etc.,
CHARLES A. TINKER.

TRANSLATION.

H'dq'rs. C. S. ARMIES, March 24th, 1865.

Gen. E. KIRBY SMITH, Com'dg Trans-Miss. Dep't:

GEN.:—The President deems it advisable that you should be charged with the military operations on both banks of the Mississippi, and that you should endeavor as promptly as possible to cross that river with as large a force as may be prudently withdrawn from your present department. You will accordingly extend your command to the east bank of the Mississippi, and make arrangements to bring to this side such of your present force as you may deem best.

I am, most respectfully, your ob't servant,
R. E. LEE.

SINCE the Orange and Alexandria Railroad has been turned over to its owners by the Government, every Northern operator then employed on that line has been discharged, for the avowed purpose of making room for the "reconstructed." Among the operators who were thereby thrown out of employment were C. A. Runyan, of Alexandria; G. B. Davis, of Warrenton Junction, and W. C. Barron, of Amherst.

IMPROVEMENT IN TELEGRAPHING.—Mr. Logan, of New York, proposes to number the words used in telegraphing—using as few as will serve; and to telegraph the numbers. As three figures will give all words under a thousand, and as the words chiefly used can be expressed by two figures, or by one figure, he calculates that the greater part of the labor and time of telegraphing will be saved. Of course the operators will have to learn a new system of signs, or language; but it is expected that this will not be much more difficult than the learning of an ordinary language. The economy of time will arise from the fact that few words will have more than three letters, and most words will have but two, and the connecting words but one.

THE NEW FIVE-CENT COIN.—The new five-cent piece is to be of the same size as the three-dollar gold coin. Fifty pieces laid in a straight line will make the "meter," or unit of French measure. It will also be so near eight-tenths of an inch that no ordinary measurement will detect the difference. Three of these coins will weigh half an ounce, and be convenient for a postage weight. On the obverse of the new coin is the Union shield resting on tied arrows, denoting peace; a wreath of laurel crowning the shield, and above, in circular form, the motto, "In God we trust." On the reverse is a figure 5 in the center, encircled in thirteen stars set in rays, with the words "United States of America" above, and the word "cents" below.

GOVERNMENT AND THE TELEGRAPH.—The English press is beginning to discuss the question of Government taking the telegraph in hand as a branch of the public service, just as the post-office, fixing low, uniform rates of from 6d. to 1s. for messages. The working of such a system in Switzerland has recently been described by a correspondent of *The Times*. In that small country the telegraph has long been established with a uniform rate of one franc for the whole country. Twenty-five words are granted for that sum, and there is a telegraph office in almost every village. The result is a vast number of messages, increasing every year, and a large revenue to the Government instead of an expense.

On the 21st ult. the House resumed in the morning hour the consideration of the bill reported previously by Mr. Loan, from the Committee on the Pacific Railroad, granting lands to Kansas to aid in the construction of the Northern Kansas Railroad and Telegraph Line.

On motion of Mr. Julian (Ind.), it was amended by reducing ten sections of land to five sections, and, so amended, passed.

Correspondence.

From the Collins Overland Telegraph Expedition.

[Correspondence of THE TELEGRAPHER.]

BULKLEY HOUSE, B. C., Dec. 26, 1866.

VERY little of interest has transpired in this department since the date of my last letter; but as we have an opportunity to send a mail out to-morrow, I will improve it by writing a few lines at least.

Although we are now experiencing the extreme severity of a northern winter, yet its effect upon our system is much less than might have been expected. The thermometer frequently ranges, for several days at a time, from 20° to 35° below zero, yet we have found by experience that less clothing is actually needed here than in the comparatively mild climate of the Atlantic States. In fact, my own clothing is precisely the same as I have worn through the whole of the past summer, with the addition merely of a pair of gloves, yet I am frequently exposed all day in the open air at the above temperature without discomfort.

Some of the effects of this extreme degree of cold are curious. You may be writing at the table, for instance, sitting so near a large fire as to be in danger of scorching your clothes, and you will suddenly discover that the ink does not flow freely from the pen. An examination discloses the fact that it is frozen solid! If you are looking through a telescope and chance to touch the brass eyepiece to your skin, the sensation bears a remarkable resemblance to that caused by red-hot iron. The intense cold also causes the trees, in many instances, to split asunder from top to bottom, with a loud report; and during some of the coldest nights it might easily be imagined that a furious battle was going on in the neighboring forest—the rapid succession of reports producing an effect precisely like the rattle of musketry and the sharp crack of the rifle.

The days at this season of the year are very short in these latitudes—corresponding to the length of the night during summer. It does not become light until about nine o'clock in the morning, and is dark again soon after three in the afternoon. Owing to this fact, and also to the great depth of the snow—some three feet—very little work can be done out of doors during the months of December and January. In February, however, the days become longer, and a crust is formed upon the surface of the snow, which, by this time, has reached the depth of four or five feet. This is the most favorable season of the year for traveling in this region, as the underbrush and fallen timber are entirely covered up, and we shall improve it to the utmost by pushing several small explor-

ing parties to the northward and toward the coast. If these expeditions prove successful, several interesting geographical problems will be solved, especially those relating to the sources of the Stekine, the Nasse, and the Finlay Rivera, on each of which large quantities of gold have been found, whose origin still remains an unrevealed mystery.

Dogs are made available for winter sledging in this country, whenever it is possible to supply them with food, which is a matter of great difficulty. These animals are of a curious species, known as "coyotes," with sharp noses, pointed ears, and bushy tails, combined with a peculiarly savage disposition, and, in my opinion, they bear a much stronger resemblance to a wolf than to a dog, or any other known animal. A pack of them let loose on Broadway would, very likely, make a sensation, and a pretty lively stampede as well. I don't think they would hesitate a moment to devour their unlucky owner, on a sledging trip, if he failed to provide them with rations. At all events they make no scruple of eating each other in seasons of scarcity.

There is one circumstance in regard to the climate of British Columbia which is worthy of particular notice, and that is its extreme healthiness. To be sure the interminable rains of the spring and autumn, and the heat of the summer, which exceeds that of the tropics, can hardly be said to render it an agreeable place of residence, but, with the exception of rheumatism, sickness of all kinds is unknown in the country. The clearness and elasticity—if the term is allowable—of the atmosphere render it peculiarly favorable to the working of telegraphic circuits of great length. From the very low battery power which is required on the line between New-Westminster and Quesnelle, I have no doubt that the eight hundred miles between the former place and Bulkley House can readily be operated without the aid of repeaters. Should this prove to be the case in the more northern regions also, which there is every reason to expect, a great economy will be effected in the expense of working the lines when completed. It is a fact well known to all practical telegraphers, that intense cold is especially favorable to the working of the lines.

Even in this "wilderness drear" we have not forgotten to celebrate the Christmas holidays with the usual festivities and without any lack of enthusiasm and enjoyment. Nor were the loved ones at home forgotten. Many a kind thought and heartfelt prayer for the welfare of the friends we have left behind, went southward with the flying clouds on this day of happy memories. That essential part of the festival—the Christmas dinner—was by no means wanting. To be sure the traditional roast goose or roast turkey were not forthcoming, but their place was made good by a luxury—which I venture to say is almost unknown to your readers—a roast beaver, which occupied the place of honor on the festive board. But all this will cease to be of interest to your readers by the time it reaches you; so I will close by wishing a happy New-Year, long life and uninterrupted prosperity to THE TELEGRAPHER, its editor, and its readers.

ELECTRON.

GROTON, N. Y., June 11, 1866.

TO THE EDITOR OF THE TELEGRAPHER:

JUDGING from the numerous communications received, many of which have been cheerfully answered, several readers of THE TELEGRAPHER are much interested in telegraphing in South America. But as it is not convenient to answer severally the many inquiries made, and to correct some erroneous impressions which my former letter created, I would beg to intrude again on the generous-columned TELEGRAPHER:

First. I would beg to state I have no authority to procure situations for American telegraphists, nor have I any personal interest in encouraging operators to that country, more than that of seeing the standard of telegraphing elevated in the South American States, by the

employment of American telegraphists, men of abilities and sound business habits, who would reflect credit on the profession and develop its true standard.

Secondly. "What is the compensation of operators?"

In South America the telegraph is practically a Government institution; its privileges are freely open to the public; but, owing to the revolutionary spirit which characterizes the people, a strict surveillance is exercised over dispatches of a political character; hence, the necessity of managers, or operators, being Government officers or employés; and as such they receive salaries from Government, from \$6000 down to \$1000 per year in gold, paper money being illegal in most States. Perhaps \$2000 is a fair average of salaries of operators. An illustration: The President of Peru—my native country—is elected for six years, and receives a salary of \$100,000, gold, per annum; other officers proportionate salaries. Many Americans attain offices of trust and responsibility.

Thirdly. "Which of the republics would be the most advisable to settle in?"

I should have regarded Chili as such, but owing to an estrangement of feeling between Chili and the United States, resulting from the recent Spanish-Chilian war, in which the Chilians were deluded to a false security by expecting practical aid from the United States—they were so encouraged by the United States authorities—and now, while Chili is smarting under the chastisement of the Spaniard and the cold indifference of her great sister Republic—I would not recommend Chili *just now* to American telegraphers. As the people of that country are too generous and courteous to long maintain prejudices against private individuals, so ere long the good feelings which were always entertained towards the Americans will again be restored.

Brazil is a beautiful country, not quite so healthy, perhaps, as the Pacific States; there are fine people there too. Its Government, though monarchical, is as essentially democratic and liberal as the United States, its people, too, are happy and prosperous. Liberal concessions have been recently made by that Government to American capitalists for the erection of an extensive net-work of wires through that empire. I should regard it as an encouraging field for telegraphists.

Fourthly. "Can a 'first-class' operator by going to South America get a situation on his arrival?"

That greatly depends on circumstances. A knowledge of the "lingo" is necessary to operate with, as in all other countries. I think Americans who would reside there could very readily acquire the language. If they should not receive situations as operators immediately on arrival, I feel confident they could get many other situations connected with the telegraph, less enviable, perhaps; and in the meantime they would have ample facilities for acquiring a knowledge of the language, business details, peculiarities of telegraphing there, and when posted, I feel persuaded that their "first-class" abilities and business habits would not long remain unappreciated, but that the superintendents would acknowledge such by appointing them to offices of trust and responsibility. The highest offices are attainable by fidelity and ability. As there is no great demand there for operators, I could not, therefore, assure them they could get situations as such "*immediately on arrival*"; but as most of the applicants are fortunate enough to be "first-class operators," I dare say their abilities would be anxiously sought for, and appreciated as such are in all countries.

Fifthly. "To whom should I apply for a situation there?"

As I cannot now conveniently give the names of superintendents, in the absence of such information I would recommend you to the American Consuls in the South American States. They are the most reliable parties whom you could consult. They would cheerfully give any required information. Gen. Kilpatrick is Minister to Chili; he resides in Valparaiso, and is much esteemed by the Chilians and Peruvians for his noble conduct in endeavor-

ing to secure the coöperation of other foreign ministers to prevent the bombardment of Valparaiso by the Spanish fleet. The gallant General has great influence in Chili and Peru and would, perhaps, aid you in procuring situations. There are many Americans settled in South America, occupying enviable positions there; there seems to be a greater tie of friendship uniting them together there than here. There they hail with delight and treat with generosity their countrymen.

Sixthly. "Is the climate healthy? What is the cost of living, passage, etc.?"

I believe Americans enjoy good health generally there. Longevity of life is much longer than in this country. I have known many Americans who were forced to return to "motherland" to die. Wonderful climate that! The climate is healthy, and not extremely warm, from the elevation of those countries above the level of the sea, and the high mountains which have been perpetually covered with snow ever since Adam was a little boy. The melting of the snow on the sides of the mountains cools the atmosphere of the surrounding country, and renders the air pure and healthy. "Living" does not cost much, owing to the abundance of all kind of vegetable and animal productions, there being but very little exports of them. Clothing is considerably dearer than in the United States, the fabric being not manufactured there, but imported from foreign countries. I could not answer definitely the cost of passage there. It varies. Shipping offices in New-York or New-Orleans will give satisfactory information.

Seventhly. "Can telegraphers, as such, achieve a respectable social position there?"

Most assuredly, yes! There are fewer class distinctions there than in this, the "beau ideal of a republic." The only line of demarkation is intelligence and courteous qualities. These have their true standard, and are respected and appreciated, be they possessed by whom they may. The social position of telegraphers there is, indeed, not less nor more than their gentlemanly characteristics and standing as men would recommend them, and as telegraphers can only attain those offices by possessing these qualities, they therefore obtain an enviable social standing, not merely as telegraphers, but as gentlemen, though, indeed, their profession wraps them with an air of mystery and sublime ideas to the masses of the people which would alone entitle them to distinguished consideration and respect. Telegraphing is not much advanced from its primitive form. The Morse Registers are very much used, and as you are doubtless "sound" operators, you would feel somewhat disappointed, if not disgusted, in not being apprised of the fact at an early day. Line sounders and "pony" sounders are much used, however, and are gradually superseding the old "threshing-machines" as soon as is being practically convenient. The "Hughes" and "combination" printing telegraphs had been somewhat used, and gave satisfaction for a time, but are now discredited from their complexity and liability to get out of order.

Our recent victory over and expulsion of the Spaniard have beneficial effects on those States, and tend to bind them closer together in a bond of sisterly friendship, and promote mutual interests, which will give an impetus to all branches of business, and infuse life and energy into every department of trade, thereby securing a glorious future for those hitherto backward countries.

We are not certainly the most industrious or energetic people in the world. A little of the Yankee element is needed. We are aware of it, and so encourage and appreciate all beneficial American enterprises.

I would assure the chivalric New-Orleans operator that our dark-eyed, loving señoritas entertain a pardonable partiality for Americans, and show them marked attention, much to the annoyance of the "lords to the manor born," who are not so successful in wooing the affections of the fair ones, who are ardent admirers of telegraphers. There seems to be some fascinating air about them that captivates the hearts of our fair daughters.

I would advise the conscientious-minded son of the Puritans, from Massachusetts, not to go among a people where his religious sensibilities would be hurt by witnessing "the strange, ridiculous, religious ceremonies of that people."

SEBASTIN DEL H. CARROLLO.

MARRIED.

In Cairo, Ill., on the 8th ult., by the Rev. F. P. Lambert, Wm. H. Cody, Manager Southwestern Co.'s Office, Memphis, Tenn., to Miss Mary Markham, of Hamilton, Ohio.

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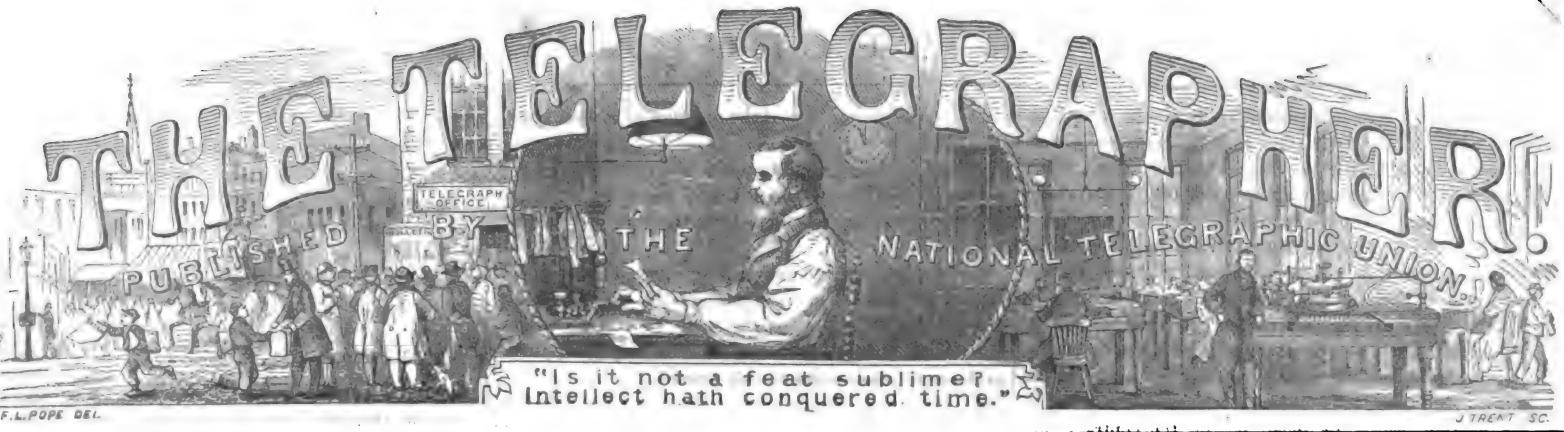
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Vol. II.

New-York, Wednesday, August 1, 1866.

No 33.

GENERAL OFFICERS OF THE NATIONAL TELEGRAPHIC UNION.

O. W. HAMMOND, PRESIDENT, P. O. Box 8190, St. Louis, Mo.
W. H. YOUNG, VICE-PRES'T, Box 1636 Washington, D. C.
L. H. SMITH, TREASURER, P. O. Box 6077, N. Y.
J. C. UPHAM, RECORDING SECRETARY, P. O. Box 4064, Boston, Mass.
S. P. PEABODY, CORRESPONDING SEC'T, Box 128, New-Albany, Ind.

LETTER FROM THE POSTMASTER- GENERAL,

(Continued.)

It seems unnecessary, however, to multiply proofs of Mr. Brown's errors in data and conclusions, and I will dismiss this brief review of his speech by adding in regard to his suggestion, "that the telegraphic charges on ordinary commercial correspondence, may be made as inexpensive as the present postal rates;" that the messengers receive more than the price of a letter stamp for delivering each dispatch, and that the Government tax upon the gross receipts of the telegraph companies averages more per message than Mr. Brown's estimate of the entire expense.

Very great misapprehension exists in regard to the profits derived from telegraphing. There is a general but erroneous impression that they are very large, and hence stock companies are periodically got up by speculative enthusiasts, who dispose of their stock to a credulous public by means of flattering and plausible statements of the great profits to ensue, while the result proves that not one company in a dozen ever earns a dividend. Some of the older companies have, by careful and judicious management, earned fair dividends; but they have in few instances averaged over six per cent. for a series of years.

Telegraphing in the United States and the British American provinces is, and has been for many years, done better and at a cheaper rate than in any other part of the world. During the first half of my twenty years' service as a telegraph operator, I was strongly of the opinion that it would have been good policy for the Government to own and control the telegraph lines, and that the public would have been greatly benefited thereby. The companies were then small and poor; the lines were badly constructed and worse supported; and all progress was prevented by the constant and unremitting competition of rival lines. There was no question but that one company could do the telegraphic business over any given territory much cheaper and better than two or more. There is a striking analogy in this respect between the telegraph and the mail service, and no one will deny that one company can manage this service better than two or more.

For this reason, and because the Government, with its unlimited resources, could expend all the money that was

necessary to build any requisite number of reliable lines, I was in favor of its assuming the control of the telegraph. Now, however, the case is entirely different. We have a telegraph system unrivaled by any other nation upon the globe, either for its extent, economical administration, or accurate and prompt manner of performing its work. The telegraphic system of the United States is more than twice as extensive as that of France, two and a half times that of Great Britain, four times greater than that of Russia, and equals in extent the aggregated system of Austria, Prussia, and the lesser German States, Italy, Spain, Belgium, Switzerland, Greece, Turkey, Persia, India, Australia, and the British American provinces. All this having been accomplished by the energy and activity of private enterprise, it does not seem to me necessary or judicious for Government to interpose in the matter. None of the States have ever given exclusive charters to any telegraph company, and there is nothing, therefore, to prevent competition. Indeed, there has never been a time within the past eighteen years when there were not more or less rival lines along all our principal routes. At the present time there are four rival companies operating lines between Washington and Boston, and several additional companies are organized to extend their wires all over the country.

But if our Government should elect to follow the example of France and other monarchical countries, and assume the control of the telegraph instead of leaving it open to private enterprise, as it has heretofore been conducted, then I should recommend that it purchase the existing lines at a fair valuation, and construct such additional ones as the exigency of the service may require.

Leaving telegraphy open to a fair competition, giving it an open field and a free fight, and the prices will conform to the general laws of trade; the price of transmitting a telegraphic dispatch bearing the same proportion to its cost as the price of a bushel of corn does to the cost of raising it and bringing it to market. But if the Government should step in and build lines to work at a loss, of course it would destroy the value of the property in the existing companies, and they would have just claims for redress.

In conclusion, my opinion is that any interference on the part of the Government in the business of telegraphing will prove unwise, injudicious, and unnecessary.

I am, very respectfully, your obedient servant,
GEO. B. PRESCOTT.
Hon. W. DENNISON,
Postmaster-General, Washington, D. C.

NEW-YORK, May —, 1866.

DEAR SIR:—Upon the reception of your letter of the 16th ultimo, receipt of which has been heretofore acknowledged, I immediately furnished a copy thereof to the executive officers of the Western Union, American, and United States Telegraph Companies, and requested them to furnish me with the statistical information and their views upon the several queries suggested by you. I have the honor herewith to transmit their reply.

Very respectfully, your obedient servant,
THEODORE ADAMS,
Agent Western Union, American, and United States
Telegraph Companies.

HON. W. DENNISON,
Postmaster-General, Washington, D. C.

Reply of the American, Western Union, and United States Telegraph Companies to the interrogatories of the Postmaster-General in his letter of April 11, 1866, addressed to Theodore Adams, Esq., as agent of these companies.

The project of building lines of telegraph along the postal roads of the United States, under the auspices of the United States Government, having been brought to the notice of the Postmaster-General by a resolution of the United States Senate, February 23, 1866, he has presented a series of inquiries, in a communication addressed to Theodore Adams, Esq., to which this paper is intended as a reply.

These inquiries are accompanied by the remarks of the Hon. B. Gratz Brown, introductory to a series of propositions presented by him, in which certain advantages are recited as the possible result of the prosecution of such an enterprise. To these also is the attention of the companies directed.

The importance of these inquiries and statements render it necessary that great care be exercised in preparing replies that shall not only be truthful, but shall present the case so clearly and intelligently as to enable the Postmaster-General to present it satisfactorily to the Senate. Too little time, however, has been afforded to do more than sketch the leading facts, compelling the omission of much detail which might illustrate and give emphasis to the general statement herein presented.

Before proceeding to answer the interrogatories of the Postmaster-General, and as introductory to the whole topic, it will be proper to notice the first of the series of considerations urged by Mr. Brown in favor of establishing lines of telegraph under Government control.

Mr. Brown says: "They could be predicated on the post-office principle, and have a uniform rate throughout the country, and a single price for all distances; the short equalizing the long, and the surplus of highly profitable lines enabling an extension on poorer routes, until all parts of the country could be brought into the telegraphic circuit."

1. To predicate the establishment of telegraph lines on the principle of the Post-office, with uniform rates, and a single price for all distances, is a popular error, which an examination of their distinctive character and capabilities soon renders apparent. In two features of detail alone do they bear distinct resemblance. The letter left at the Post-office and delivered to its address, corresponds with the message left at a telegraph office and its delivery. In all other respects there is so fundamental a difference that an examination is essential to fix the value of all details.

THE TELEGRAPHER SUPPLEMENT.

invaluable service to our cause when no other could be found to perform his duties.

"In conclusion, I will repeat my former recommendation, 'that no time be unnecessarily consumed, detaining us from our business; all the arguments then urged being equally applicable at this time.'

"Very respectfully yours,

"C. W. HAMMOND, President."

On motion, the report was accepted, and ordered to be placed on file.

PRESIDENT.—The next business in order will be the reading of the Treasurer's annual detailed report.

MR. YOUNG.—Although I have not been authorized to make this statement, still I will just remark here that Mr. Smith is not prepared, from what I saw this morning, to make his report. He was engaged on it this morning, and has a considerable amount yet to do. I think it would be well to pass over the report of the Treasurer until this afternoon or to-morrow morning, and give him further time. He, however, said nothing to me in relation to the subject. I have come to the conclusion that he is not prepared to report.

PRESIDENT.—I will further add that Mr. Smith, some three months ago, tendered his resignation of the office of Treasurer, but, there being but a short time before the meeting of the Convention, I did not accept it. He said he had more business than he could attend to properly. I think he should be granted further time.

And further time was granted.

The report of the Corresponding Secretary was then read. It is as follows:

"LOUISVILLE, Ky., Sept., 1866.

"Mr. President, and Gentlemen of the Convention:

"I regret exceedingly that it is, for many reasons, impossible for me to be with you in Convention.

"In making my report to you I have but little to submit, except a few general remarks. Beyond this, I refer you to my record book.

"I was very unexpectedly elected to office at Chicago, at a time when I had no permanent situation, which caused at times considerable delay in correspondence reaching me, and rendered it impossible for me to give that prompt attention to the duties of the office which I desired.

"Clause 2, Section 1, Article XI., was so changed by the Chicago Convention as to place the duty of procuring situations for members out of employment in the hands of the District Directors, but owing to some error in remodeling the Constitution, this change was overlooked, and the clause remained as before. Under these circumstances I considered it my duty to follow the Constitution, and I have performed this duty all the time. I was very successful up to the time of the closing of the United States Company's offices, having procured satisfactory situations for nearly all applicants, but the closing of those offices threw so many operators out of employment that it has since been impossible to procure any situations. This has caused considerable dissatisfaction among a certain class of members, who expected almost miracles from the Union, and has also made frequent and heavy calls upon the Treasurer. But we have, I believe, through the lenience of many who were entitled to the weekly compensation, safely weathered the storm, and I think it highly improbable that a similar case will ever again occur.

"For the purpose of greatly facilitating business, and relieving the duties of both officers, I earnestly recommend that in electing officers for the ensuing year, you choose the President and Corresponding Secretary from the same place, and such men as will be likely to remain together during their entire term of office.

"Considerable dissatisfaction has been expressed to me, personally, by members in the country who belong to 'city' Districts, that they do not have anything to say in the meetings of their Districts, it being almost invariably the case that the members in the city comprise a quorum, and literally carry on the District without consulting outside members at all, who know nothing of what is going on in a District in which they are entitled to a vote on every question, until they see it published in THE TELEGRAPHER a month or so afterwards. They naturally complain that they are called upon regularly to pay Union and Local fines to support a Union in which they have no voice. This, of course, produces a lack of interest on their part, and greatly reduces the efficiency of our cause. Seeing no other remedy for this, I have constantly ad-

vised their withdrawal from the city Districts and the formation of new ones among themselves, to hold their meetings by telegraph, as in the St. Joseph and many other Districts. If this was universally done, there would be an almost instantaneous revival of interest, which would materially enhance the strength of the Union.

"President Hammond some time since issued a notice that it was not necessary for the five composing the nucleus of a District to be all in the same place, but that any five suitable men on the same telegraph circuit are sufficient. This I consider very important, but as it is not generally understood by those most interested, I would very respectfully suggest that Clause 1, Sec. 1., Art. VIII., be so amended as to read: 'Or any five competent operators on the same circuit,' etc.

"Trusting that an amicable feeling, devoid of all sectional jealousies, may mark your proceedings; that the questions which have for the past few months disturbed that unanimity of feeling and action without which we cannot hope for success, may be permanently and satisfactorily settled, and that our glorious Union, for which all have toiled so hard, may pass from your hands to a future deserving of the cause, I remain, very truly,

"Your obedient servant,
S. P. PEABODY, Cor. Sec. N. T. U."

The report was, on motion, accepted.

PRESIDENT.—I have just received the report of the Treasurer, which the Secretary will please read. The Recording Secretary then read the report of the Treasurer.

It is as follows:

"TREASURER'S OFFICE, NATIONAL TELEGRAPHIC UNION,
NEW-YORK, Aug. 31, 1866.

"C. W. HAMMOND, Esq., President N. T. U.:

"SIR:—I have the honor to transmit to you, and through you to the Convention of the Union, my Annual Report as Treasurer of this Association:

"The receipts of the year just past exceed those of the previous year by \$708.76, and the expenses by \$2322.68.

"The reason why the increase in the former amount is no larger, is because one District has been virtually dead, four or five are in a syncopic state, and many others pay up slowly.

"The unusual expense arises from several causes, viz.: the last Convention was very expensive; \$200 was voted as a present to the Editor of THE TELEGRAPHER for his initiatory year's services, and to him a salary has been paid during the year; an unusual number of deaths, sickness, and members out of employment; in short, each item of expense has been far greater than any previous year. In view of this I must earnestly urge that the Convention expenses be greatly reduced by the reduction of the number of representatives. Two members to represent each of the larger Districts, and one each of the smaller, will, in my opinion, be sufficient to transact the necessary yearly business."

Receipts.

To balance from last year's account.....	\$759 06
" " Cash for fees and dues,.....	8,909 28
" " Certificates,.....	18 25
" " Interest on U. S. Bonds,.....	123 12
" " from publication of THE TELEGRAPHER,.....	88 94
" " invested in U. S. Bonds,.....	1,000 00

Expenditures.

By Cash Paid Expenses of Convention of 1865.....	\$907 90
" " Voted L. H. Smith, editor.....	200 00
" " Paid Funeral Expenses.....	270 75
" " -" Treasurer's, Editor's, and Supply Agent's Salaries.....	600 00
" " for Sick Relief,.....	888 00
" " According to Sec. 2, Art. XI.....	245 00
" " for printing certificates and stationery,.....	541 93
" " Expenses one issue of THE TELEGRAPHER in excess of receipts.....	55 28
" " Postage and other incidentals,.....	188 87
" " in U. S. Bonds,.....	1,000 00
" Cash in hand,.....	1,103 17

\$6,488 90

"Aside from the Government securities, it will be observed that notwithstanding the excessive expenses the cash in the Treasurer's hands exceeds the amount of last year by \$344.11.

"No money has been received for certificates since September of last year, by reason of an act passed at the last Convention increasing the initiation fees and furnishing certificates to new members free.

"I have furnished twenty-eight badges during the year at a cost to the purchasers of \$113.00

"It should be settled who is to pay the loss of money or badges, when such happens to occur.

"One badge ordered from California was mailed by the manufacturer in February last, and had not at last advised reached its destination. The purchaser ought to lose it, and the manufacturer claims to have mailed the badge. The manufacturer is exceedingly slow and apparently inattentive, and I would suggest that the Treasurer be empowered to purchase elsewhere, if better and more prompt attention is not paid by the present maker.

"The Union now numbers 1173 members; 252 persons have been admitted to membership during the year. The largest number was admitted by Chicago, and the smallest by New-Jersey—the former having initiated twenty-five and the latter one. The largest District, in point of numbers, is that of Chicago, and the smallest that of Memphis, a newly-organized District—the former numbers 109, and the latter 8.

"Fifty-two transfers of members from one District to another have been made within the year; fifteen members have withdrawn.

"Owing to the neglect of the District officers I am unable to state the several reasons for these withdrawals, but feel safe in saying the majority were because of the parties engaging in other business.

"Ten members have been expelled for various causes, the principal one being non-payment of dues; the largest number being sent adrift by the Baltimore District.

"Although I have as yet but two members recorded on my books as dead, I am cognizant of five having closed their circuit of life since you last met.

"Eight new Districts have been organized, with an aggregate membership of one hundred and thirty-seven.

"Four Districts have not been heard from since last September.

"The Nashville District has been, by reason of the breaking up of the war, virtually dead, but is now, I learn, being revived.

"There is now owing to the Union, by reason of non-payment of dues, \$8000; of this amount the New-York District owes the largest sum, and the Corry District the smallest.

"The Boston District leads all others in its payments into the Treasury. It is not only the first District on my books, but pays the most promptly, regularly, and generally of all. Washington, Chicago, St. Louis, Baltimore, Louisville, Albany, and one or two others follow in its wake.

"New-York, although the second largest District in point of numbers, has been under a cloud during the last year. But one report, a small one, has been made me. A second one, I learn, lately was nearly ready for remittance, when some over-zealous pickpocket relieved the Director of the funds which were to have been passed into the Treasury of the Union. A few days only, I am assured, will pass before the amount will be placed in my hands.

(Signed)

"L. H. SMITH, Treasurer."

MR. STOVER moved that the report be accepted and referred to a committee of five.

MR. BUCKWELL.—I move to amend by making this motion applicable to all the reports, including the President's and Secretary's.

The amendment was agreed to, and the motion as amended adopted.

MR. YEAKLE moved a reconsideration of this vote, but subsequently withdrew it.

PRESIDENT.—I report the names of the following gentlemen on this committee: Messrs. Stover, Buckwell, McKenzie, Pannell, and Whipple.

MR. STOVER.—I desire to have my name withdrawn from this committee.

Not agreed to.

MR. YOUNG.—I move, Mr. President, that a committee of seven be appointed to revise the Constitution and By-Laws.

MR. BUCKWELL.—I move the reconsideration of the vote referring reports of officers to a committee of five.

MR. YOUNG withdrew his motion, and that of Mr. Buckwell was adopted.

PRESIDENT.—The subject comes before the Convention again whether this committee shall be appointed.

Having been put to the Convention, the motion was lost.

Mr. PANNELL.—I think in the selection of this committee that members should be taken from every part of the country, as it is a very important committee, and they should give the matter very important consideration, so that we can have a general expression of opinion. I hope that my name will not be placed on the committee, as I am really too sick to attend to any important matters of that or any other kind.

Mr. STOVER.—I trust that the gentleman's name will be placed on that committee, as he is a delegate from New-York, and can give us some information from that District. I renew my motion, Mr. President, that the report of the Treasurer be referred to a committee of five.

Adopted.

PRESIDENT.—I will appoint on that committee the following gentlemen: Messrs. Stover, Buckwell, Pamplin, Whipple, and Steinhoff.

Mr. STOVER.—I move that a committee of five be appointed, to whom shall be referred the reports of the President and Corresponding Secretary.

Mr. YOUNG.—I second that a committee of seven be appointed to take charge of this matter, and also to revise the Constitution and By-Laws.

Mr. CHURCHILL.—I think it will facilitate the business of the Convention very much to have a committee appointed for this difficult and tedious matter. Amendments can come before the committee just as well as they can come before the Convention. I am in favor of the committee being appointed.

After a brief discussion the motion as amended by Mr. Young was adopted, and the Chair appointed the following committee to revise the Constitution and By-Laws, and also to consider the reports of the President and Corresponding Secretary: Messrs. Pannell, McKenzie, Wheeler, Yeakle, McDill, Biggert, and Churchill.

Mr. SCULLY.—I move that the committee report to-morrow morning on the Constitution.

Mr. YOUNG.—It seems to my mind that time is entirely too short. We will be in session nearly all day, and the committee would have very little time to meet and consult together. I think it better to give them as much time as possible.

Mr. SCULLY.—I then move that they report as early as practicable, say any time within three days.

Mr. BLISS.—I would like to see that committee report as fast as it is able. There are many here who want to return to their places of business by to-morrow evening or certainly next day, and if the committee wait until to-morrow or next day we will not have time to do the business necessary. This committee can report as they go along. If they are ready to report upon several points this evening I should like to have them do so. It is of no use to lose so much time.

Mr. SCULLY.—The committee might report to-morrow afternoon, but if not entirely ready then they can report progress. It will need all the time and attention they can give to the matter. If they cannot report in full they can report progress, and then we can act as we see proper.

Mr. STOVER.—We had better fix no time for the reports of the committees. If the time is made too short the work will not be properly performed. This committee know that it is not only proper but our duty to get through with our Convention as early as possible. The expense of this National Convention is large, and the longer we stay here the greater, of course, it will be. I am therefore in favor of an evening session. I hope we may have a report from some one of the committees as early as this afternoon.

Mr. SCULLY.—I think if some definite time is fixed it will facilitate matters.

Mr. PANNELL.—I would suggest that the committee should have as much time as possible. I think it will answer every purpose if we can get that report before the close of the session.

The motion of Mr. Scully that the committee report to-morrow morning, and the substitute to report to-morrow evening, and if the report be not in complete condition to report progress, were both lost, the latter by a vote of 15 to 9.

Mr. MAYNARD, Washington, offered the following resolution, which was adopted *nem. con.*:

"Resolved, That the hours for holding the session of this Convention shall be from 10 A. M. to 1 P. M., from 2:30 P. M. to 6 P. M., and from 7:30 P. M. until such time as the Convention shall see fit to adjourn."

Mr. BUCKWELL.—I move that all proposed amendments to the Constitution and By-Laws be referred to the committee appointed to revise the Constitution and By-Laws, and provided they are not accepted to be returned to the presentor.

The motion was adopted *nem. con.*

Mr. STOVER.—I do not know whether this motion is actually necessary, but I move that the Treasurer be requested to furnish the Convention a list of members in good standing in each District. I think it is absolutely necessary we should understand it. The Committee on Credentials do not know how many delegates each District is entitled to.

Adopted *nem. con.*

Mr. THODE.—I would suggest if there is no other business before the Convention that we adjourn until two and a half o'clock this afternoon.

Mr. BLISS.—Before adjourning, Mr. President, there is a little matter I would like to speak of. There are many delegates who have come here without passes, and they will have to pay their fare back. I would suggest that a committee be appointed to procure passes if possible, and if not, to arrange to obtain commutation tickets. I think that by attending to this immediately we will save considerable. I bring this matter before the Convention, and they can act upon it as they see fit.

Mr. BUCKWELL.—I called on the Philadelphia, Wilmington and Baltimore Road and they agreed to furnish delegates with half-fare tickets—the kind which I used in coming down. If the gentlemen will give me their names I will secure these tickets for them.

Mr. BLISS.—I move that a committee of three be appointed to attend to this matter.

Mr. Thode withdrew his motion to adjourn.

The motion of Mr. Bliss to appoint a committee of three to procure passes or commutation tickets was then adopted, and the following gentlemen were appointed on the committee: Messrs. Bliss, Yeakle, and Kerner.

Mr. THODE.—I now renew my motion to adjourn.

The motion to adjourn was adopted, and the Convention arose at 11:45.

Adjourned.

AFTERNOON SESSION.

WEDNESDAY.

The Convention was called to order at 3:15 P. M. Vice-President Young in the chair.

VICE-PRESIDENT YOUNG.—When we adjourned we were on the seventh order of business, therefore the offering of resolutions will now be in order.

Mr. STOVER.—Before proceeding further, Mr. President, the Committee on Credentials beg leave to add to their report the names of A. H. Reese, Detroit, and B. W. Flack, Pittsburgh.

There being no objection the names of the gentlemen were added to the list of delegates.

MR. MAYNARD moved that the time for the commencement of the afternoon session be changed from half-past two until three o'clock.

Adopted.

* * * * *

Mr. PANNELL.—After consultation with the committee on Constitution and By-Laws, and various other documents, I find that it is impossible for them to do justice to that work without dispensing with one session; and I believe that if the committees can devote this evening to their reports that we would facilitate the business to-morrow, and be in a condition to adjourn to-morrow night. I therefore move that when we adjourn we adjourn to meet to-morrow morning at ten o'clock.

Amended to read "nine" o'clock, and adopted *nem. con.*

Mr. BLISS.—Has the report of the Editor of THE TELEGRAPHER, for last year, been read? If so, I have not heard it.

PRESIDENT.—The Secretary will please read the report of the Editor of THE TELEGRAPHER. It has been inadvertently deferred.

The Secretary read the Report of the Editor as follows:

Report of the Editor of The Telegrapher.

"NEW-YORK, Aug. 31, 1866.

"C. W. HAMMOND, Esq., President N. T. U.:

"Sir:—In accordance with the provisions of the Review Bill I herewith submit for your consideration, and that of

the Convention, my second annual report. I have been able to make you but one quarterly report within the year for the simple reason that I have had all my time completely occupied in attending to my several offices, and in addition I might say, that as a complete edition of the paper is seldom sold for several months after its issue, a report at any stated time would be but an incomplete one. I would, however, have regarded the amendment to the Bill, had I been able to have done so. A half-finished report is now among my papers, awaiting a time when I can complete it.

"The success of the paper has been equal to, and I think greater, than that of the first year. At the beginning of the year the subscriptions seemed to exceed those of any former period, and the receipts from advertising have been far in excess of those of 1864 and 1865.

"Very much of my report of last year is applicable to the past year's work, and I will therefore not repeat it.

"No donations have this year been made, except one of eight dollars from Colonel R. B. Bullock, of Augusta, Ga.

"I have succeeded in getting the paper printed much cheaper than I did the first year, and although no unusual expense for supplies has occurred, the receipts have been quite extensively applied to giving the subscribers more reading matter. While, in the first volume, ending Nov. 15, 1865, I gave 196 pages, in the second volume, which has extended through a period of time of five months less than the first, I have given them 192 pages. The semi-monthly issue meets with more favor than the former monthly did, and it is my opinion a weekly issue would be still more popular.

"The paper still suffers from want of proper attention, which a person whose time is occupied with other business cannot give. I have worked faithfully and as well as I could under all the circumstances.

"I believe the hearts of telegraphers are so bound up in this paper that it is their determination not to let it die, but unless some provision can be made whereby the editor can devote his entire attention thereto it must sooner or later cease to exist, simply from the Editor's inability to give it the attention necessary.

"Below I give you the cash account of THE TELEGRAPHER:

Receipts.

To Cash in hand last volume.....	\$780 69
" for Subscriptions and Advertisements....	1,689 13
" for Diagrams sold.....	1 25
" for 12 bound copies Vol. I.....	53 04
" from Treasurer to pay expenses in excess of receipts of No. 8.....	55 28
	\$2,579 39

Expenditures.

By pd. for Printing.....	\$1,261 26
" Paper.....	586 00
" Wrapping paper.....	18 21
" Postage, Subscriptions, Errand-boy, Clerk-hire, and other incidentals.....	163 51
" Cash remitted Treasurer for Receipts of Nos. 9, 10, 11, 12, and 13.....	88 23
" in hand, to balance.....	488 18
	\$2,579 39

"By the above figures it may be seen that although more money has been spent than formerly to produce a readable paper, the Union has not been placed in debt for its production, and its success so far as a paying institution warrants me in recommending greater effort to place it beyond the possibility of failure.

"A small cry was set up some few months ago, the echoes from which have not entirely died away, against 'the Editor of THE TELEGRAPHER.' As no formal charges were preferred to you against me, it may seem unnecessary for me here to notice the ill-judged but partisan demonstration, but as the subject will call forth a heated discussion at the present Convention, I do not consider I am performing a work of supererogation by stating a few simple facts, for the purpose of aiding the delegates in a settlement of the subject.

"This demonstration originated in the American Company's Office in this city, by those who hoped to gain some praise by appearing to be zealous in favor of that company. The first cause of any discontent was my failure to report a presentation which I did not see made, and about which I had scarce any information; and, further, that I did not give a flattering account of a ball, with which I became disgusted because one feature of it was prostituted to improper uses.

THE TELEGRAPHER SUPPLEMENT.

"Some time in February last, a paper was drawn up in the American Company's Office here, signed by six employés of that company, all of whom filled official positions in that corporation. This document also contains the names of eight other persons, four of whom reside in Philadelphia, two in Washington, and two in Baltimore. All of these signers, with three exceptions, were employés of the American Company, and when we quote a part of the opening paragraph, its *animus* will be clearly understood:

"Its (THE TELEGRAPHER's) tone is decidedly antagonistic to the American and Western Union Telegraph Companies, and it is notoriously in the interest of an opposing line."

"We find but one signer of this remarkable document an employé of the Western Union Company. Although the operators in this company's employ in this city were urged to sign this paper, which was carefully marked 'CONFIDENTIAL,' none did.

"This model paper had been in existence nearly a month before it came to my knowledge, and then in such a vague way as to leave me nearly as ignorant of its purport as before I heard of it.

"About the time this 'Confidential' paper was being drawn up, a gentleman, against whom I have nothing to say, was, unknown to himself, proposed, and in a very honorary way, elected a member of the Union, by the New-York District. The object of this election transpired after a lapse of time, and proved to have been for the purpose of making him eligible for the position of Editor of THE TELEGRAPHER.

"The fate and treatment of the 'Confidential' paper put in circulation by five persons in the American Company's Office in this city is too well known for me to detail here.

"There is but one other point in reference to this demonstration to which I wish to allude, and that is, the enthusiastic meeting held by the employés of the American Company, in the meeting-room of the New-York District, on the evening of the third of April last.

"The rejoinder of the Boston District to the 'Confidential' document of the American Company's employés was sent to all the Districts for consideration. Having been informed that it preferred charges against me, I asked the Director of the New-York District for a copy, or the perusal of it, and was informed it could not be shown, but would be read at the next meeting, when I might hear it if I were present. Presuming this statement was made in good faith, I asked no further questions.

"On the night of April 8d, I was prompt in my attendance at the regular meeting of this District, and was surprised to find an astonishing number present. Of the thirty-five members present twenty-three were employés of the American Company, marshaled by the Manager of their office, who was assisted in his 'roping in' process by his assistant and one of his chief operators. These three gentlemen were assisted by two others, who acted as guides to this regimental fragment. Among the most enthusiastic of the denunciatory crew were twelve—the exact number of the apostles—who never subscribed to THE TELEGRAPHER, or, so far as I know, ever bought a copy. Many of the enthusiastic twenty-three were in attendance at a District meeting for the first time, and not a few were sadly in arrears for both dues and fines; notwithstanding all this, they could vote heartily, under the tutelage of their leaders, denouncing the Editor of THE TELEGRAPHER.

"The preamble and resolution of the New-York District—the one which has received some severe handling from other Districts—when read, showed plain evidence of having been written with the Boston document (the one which I was not permitted to see) open before its author.

"When the Secretary *pro tem.* had finished reading the resolution, there was no one to father it until the leader of the movement courageously arose, and assumed, rather bravely I thought, its paternity. After this hitch was removed, it seemed like plain sailing, but, owing to haste or ignorance of parliamentary rules by the enthusiastic voters, the resolution was not passed, although a softening amendment to one portion of it was. However it was hurled defiantly at the Boston District, but must have exploded before it reached there, as we never heard of it afterwards, although we had the pleasure of printing a modified copy of it.

"After this happy effort by this clique, a paper was put in circulation by them in this city, for signatures, asking

the President of the Union to displace me in favor of the gentleman who had been so quickly and quietly elected a member. Prominent among the few who paraded this prayer of the petitioners around for signatures, were two gentlemen who to my knowledge used their official influence to persuade operators under them not to join the Union, and have made a labored effort to prove its pernicious influences and dangerous consequences.

"All these strong efforts have been made, yet the Editor of THE TELEGRAPHER still retains his chair—a seat which we know it will be insisted he shall retain, but which he begs leave to decline.

"All we wish is that the course of THE TELEGRAPHER shall be fully decided upon, and an editor appointed who can devote better attention and more talent to it than we have been or are able to.

"As Supply Agent of the Union, I have to report the following supplies purchased during the year, the most of which have been distributed:

500 Certificates of Membership.
1500 Constitution and By-laws.
6600 Envelopes, large and small.
1800 Transfer Cards.
1500 Meeting Notices.
1300 Pledges.
2500 Dues' Receipts.

74 Reams of Letter Paper.

"With an earnest hope for the future success of THE TELEGRAPHER, and the stability of our Association, I reluctantly lay down my burden, and subscribe myself,

"Yours respectfully,

(Signed) "L. H. SMITH,
Editor of THE TELEGRAPHER, and Supply Agent of the
Union."

VICE-PRESIDENT YOUNG.—Having heard the Editor's report what is your action?

MR. WHEELER.—I move the reference of that report to the Committee on the Treasurer's Report.

Adopted.

MR. STEINHOFF.—If we have nothing else to discuss, I move we adjourn to allow the committees all the time possible to make up their reports.

MR. YOUNG, Vice-President.—I should like to say something about the charter business, if the gentleman from New-York will withdraw his motion.

The motion to adjourn was withdrawn, and Mr. Young made the following verbal report relative to the charter for the National Telegraphic Union.

MR. YOUNG.—I would like to lay the facts in regard to the charter before the Convention. During the last session of Congress and the session previous, as you all know, this matter of obtaining the charter for the Union from Congress was left in my hands. During the first session I did my best, and had a charter drawn up and reported, and it was then referred to a committee, where it laid during the whole of the session. All my efforts were in vain to have anything done with it. I went personally before the committee and talked over the matter, and they seemed unwilling to say whether they were in favor of it, or opposed to it. At the next session (the *last* session) I found it was necessary to have it again reported to the House.

That was the process they would have to go through again to have it before the House of Representatives. This was done, and it was then referred to the Committee on the Judiciary, all composed of lawyers. I went before that committee several times, and the charter was afterwards referred to a committee of one, Mr. Woodbridge of Vermont. I saw him on several occasions, and he finally told me the committee was a unit and opposed to granting the charter, and he stated as an illustration that the Odd Fellows had applied for a charter, and they had refused to grant it, and they invariably refused such charters.

He said it would not answer and might conflict with some of the State laws. It was finally reported, with a recommendation by the committee that it be rejected. I do not know but what the result might have been different if there had been a considerable amount of money around. I do not know what is best to be done with this charter. I think the only course for us to pursue is to obtain a charter from one of the States, unless you desire to try it again before Congress.

MR. BUCKWELL.—It has always been my opinion from the first that it would never pass Congress, because it might conflict with some of the State laws. If we had a charter from a State it would amply supply everything.

We ought to have a charter. We cannot become legalized until we do. It should be had in some State. I would move that a committee be appointed to attend to this matter in some particular State—any one you may recommend. I therefore move that a committee of three be appointed to obtain a charter from the State of New-York for the National Telegraphic Union.

MR. ZEUBLIN.—I move to amend by inserting "Maryland" instead of "New-York."

MR. KELTY.—I do not think that there will be any trouble in getting a charter from Maryland. I think the next Legislature will give it to us.

MR. BUCKWELL.—I accept the amendment of the gentleman from Maryland.

MR. STEINHOFF.—I think that if a charter can be obtained it can be got in New-York as well as anywhere else.

MR. KELTY.—My friend from Maryland has quite a large acquaintance with the Maryland Legislature, and accordingly I think it would be a proper place.

MR. WHIPPLE.—I reside in Albany and will do the best I can to get it through. I have quite an extensive acquaintance with the legislators, and will do all that I can to advance the interests of the Union in this respect.

MR. BUCKWELL.—I think the State should be left blank, and that the committee take such means as they think proper in forwarding action.

MR. ZEUBLIN.—There is no use in getting the charter from any other State if it can be obtained in this.

MR. KELTY.—I can have the influence of six members to obtain the charter in this State.

MR. PANNELL.—I should like to ask a question. I would like to know if there is any difference between New-York politicians and Baltimore politicians?

MR. SCULLY.—Would it not answer the purpose if it was secured in Maryland as well as if it was New-York? If we obtain the charter it is really all we desire.

MR. STOVER.—I would like to inquire of our worthy Vice-President if he has any reason to believe that any party connected with the telegraphic interests of the country used any efforts in opposition to our obtaining the charter.

MR. YOUNG, Vice-President.—I am not prepared to say for certain. I inquired of several, and they told me emphatically that no influence had been brought to bear, and that the recommendation of the committee to reject the charter is simply for the reasons I have stated. As far as my individual opinion is concerned, I may say I am very well satisfied that there was no influence brought to bear against it, and while I am on this subject, I will state in connection with it that several telegraph men of influence have rendered me considerable aid, and done all in their power to obtain the charter.

MR. STOVER.—I think that if that motion was changed, so that if they failed to get a charter from the State of New-York they could secure one in Maryland, and if not there somewhere else, it would be better. I am certain we could get a charter from Massachusetts. I believe there is a general law there under which such organizations can have a legal existence.

MR. COLLAMORE.—It seems to me that it does not matter much, if we get a charter, where it comes from. I move that a committee of three be appointed to obtain a charter, and let them get it where they can do the best.

The substitute of Mr. Collamore was agreed to, and the President appointed the following committee: Messrs. Whipple, of Albany; Kelty, of Maryland; and Wheeler, of Boston.

MR. STOVER.—I move that a committee of seven be appointed to draw up resolutions declaratory of the principles and objects of our association.

MR. BUCKWELL.—I would like to inquire of the gentleman offering that resolution whether it is the purpose to frame these resolutions after we have finished our Constitution. It seems to me it would be proper to have this come up after the subject of remodeling our Constitution had been concluded.

MR. STOVER.—I think it is nothing more than usual for associations of all characters to assert their principles and objects. There has been so much discussion in regard to the objects of our association, that I think it would be well to state them fairly and plainly to all who care to understand them. I think the committee can make their report as they are ready, and it can be taken up when the

Convention sees fit. I have no doubt that the committee will make a report in full accord with the avowed principles and objects of our Constitution.

Mr. Stover's motion was then adopted *nem. con.*

The following gentlemen were then nominated and elected as a committee to frame the resolutions:

Messrs. Upham, Recording Secretary; Collamore, Maine; Scully, New-York; Black, Philadelphia; Hammond, President; Smith, Editor and Treasurer; and Young, Vice-President.

Mr. PANNELL.—I move that the election of general officers be made the special order of to-morrow afternoon at four o'clock.

Mr. YOUNG, Vice-Pres.—I will state for the information of the members, that at the last Convention a resolution was adopted stating that the election of general officers should take place the very last thing at the final session of the Convention. I think that resolution was adopted at the last Convention.

Mr. PANNELL.—I do not think that will apply to our action here. It only referred to the last Convention at Chicago.

Mr. COLLAMORE.—I should like to raise a point, that in the order of business published in the Constitution, the election of general officers should take place after the last business of the session had been gone through with; and as there is other business before the Convention I think it is not in order.

Mr. SCULLY.—I think the point is well taken by the gentleman from Maine, and the proceedings of this Convention should fully accord with the order of business laid down in our Constitution.

Mr. PANNELL then withdrew his motion.

Mr. COLLAMORE.—I move, Mr. President, that we now adjourn to give the Recording Secretary an opportunity to get his books and papers in order prior to our session to-morrow morning.

The motion being put to the Convention, the President declared an adjournment at half-past four o'clock.

Adjourned.

SECOND DAY.

Morning Session.

THURSDAY, Sept. 13th.

The Convention was called to order at 9:15 A. M. Vice-President Young in the chair.

No quorum present.

Mr. UPHAM moved that a recess of twenty minutes be taken, to allow absentees who are out on committees time to arrive.

Agreed to.

The Convention was again called to order at the expiration of that time by the Vice-President.

Mr. STOVER.—Before the reading of the minutes of the proceedings of yesterday, Mr. President, the Committee on Credentials beg leave to add to the list of delegates the names of Robert J. Black, of Philadelphia, and E. B. Chandler, of Chicago. We also report that Mr. John E. Zeublin has been appointed as delegate to represent the Greencastle District, the delegate from that District being unable to attend.

The Secretary, Mr. Upham, then read the proceedings of yesterday, which were approved.

Mr. ZUEBLIN, by consent of the Convention, then read the following letter:

"*GREENCASTLE, Sept. 7th, 1866.*

"JOHN E. ZUEBLIN, Esq.:—Dear Sir:—I herewith send you certificate making you proxy for our District, for reasons therein stated, and hope that you will kindly consent to represent us.

"We as a newly-formed District, would not, if represented by our own delegate, have anything to lay before the Convention, preferring to let older Districts take the lead, while we would support such new measures as might seem to look to the advancement of the interests of the Union.

"We have favored the present management of THE TELEGRAPHER, and had no opinions in common with those who are disposed to pick flaws in it, considering that, under the circumstances, it has been conducted in a remarkably successful manner, and we would favor the continuance of L. H. Smith, Esq., in the editorial chair, or in case he does not accept, would support any man who may seem to be in general favor with the Convention.

"In regard to general officers, and any and all other questions, we will be satisfied with your judgment in casting our vote.

"Respectfully yours,

(Signed) "J. C. SHOWERMAN, District Director."

Mr. BLACK.—I move the communication just read be placed on file.

Motion adopted.

Mr. BLACK offered the following:

"Resolved, That the proceedings of this and all future Conventions be adopted previous to adjournment *en diec.*"

Adopted.

Mr. STOVER.—I have evidence that the Louisville, Ky., District gives Mr. Biggett power to act for that District. The gentleman was accepted as the representative of that District.

Mr. YOUNG, Vice-President.—There are, I believe, several committees who were appointed yesterday ready to report.

Mr. STOVER.—The committee to whom was referred the report of the Treasurer, have attended to their duty, and are ready to report.

Mr. BLACK.—It has been suggested by two or three delegates that perhaps it would be well for the Convention to resolve itself at some time to-day or to-morrow into a committee of the whole on the state of the Union, so that each member can speak on any subject. Now they must confine themselves to the subject before the Convention. If this business is not pressing, I think it would be well to set apart an hour to-day and an hour to-morrow for that purpose. I throw it out merely as a suggestion.

Mr. STOVER.—I cannot see the point of the gentleman's remarks at this time. I said that the committee on the Treasurer's Report were ready to make their report.

Mr. ZUEBLIN.—I move that the report of the Committee on the Treasury be now received and read.

The motion was agreed to, and the report of the committee was read by Mr. Stover, Chairman, as follows:

Report

"*Of the Committee to whom was referred the Treasurer's Annual Report.*

"*BALTIMORE, Sept. 13th, 1866.*

"Your committee have carefully considered the statements and recommendations contained in the Treasurer's report, and feel warranted in congratulating the Union on the healthy state of our finances. Yet we find in the large amount of outstanding dues cause for serious concern, and we recommend the most energetic and decisive legislation in reference to this apparently growing evil.

"We do not believe that any member or any District are of any value to our Association unless they are ready at all times to promptly and fully meet their obligations, and a proper regard for the general good absolutely requires that we insist upon the suspension from all rights and privileges of membership, such members as shall fall six months in arrears in the payment of their regular dues.

"We find the following amounts due from the several Districts*:

New-York,	\$640 00	Rochester,	\$188 00
Boston,	67 00	St. Joseph,	37 50
Maine,	10 50	Utica,	221 00
Washington,	113 00	Omaha,	64 50
Philadelphia,	209 00	New-Jersey,	116 50
St. Louis,	817 50	Pittsburg,	158 00
Louisville,	64 00	Sacramento,	177 00
Detroit,	64 00	Harrisburg,	45 00
Baltimore,	96 50	Toledo,	52 00
Indianapolis,	148 00	Peoria,	22 50
Cincinnati,	111 00	Corry,	5 50
Albany,	102 00		

"Your committee have suggested to the Committee on the Revision of the Constitution several amendments, which, if adopted, will, we trust, effectually remove this great evil to which we have referred, and place our organization in a far more healthy and powerful condition.

"The amendments we have recommended are as follows: Add to Art. IV., Sec. 3: 'He shall report to the annual Convention the number of members in good and regular standing, and this report shall determine the number of delegates to which each District is entitled.'

"Add to Art. XI., Sec. 4: 'But it is understood that

members six months in arrears shall not be included in the enumeration.'

"Also incorporate the following with the duties of the President and Executive Committee: 'The President, by and with the advice and consent of the Executive Committee, may order the disbandment of any District failing in its obligations to the Union; but all members of Districts so disbanded, if in good standing, shall be entitled to membership in the nearest existing District.'

"Respectfully submitted,

(Signed) J. W. STOVER,
A. L. WHIPPLE,
N. C. PAMPLIN,
M. D. BUCKWELL,
W. STEINHOFF, } Committee."

Mr. ZUEBLIN.—I move that the report of the committee be adopted.

Adopted *nem. con.*

Mr. BUCKWELL.—I move that the committee, so far as they are connected with the Treasurer's report, be discharged.

Mr. YOUNG, Vice-President.—That is hardly in order. As soon as their work is through, of course they are discharged. It has been suggested that we go into committee of the whole on the state of the Union.

Mr. PANNELL.—I wish to make a few remarks in regard to the Committee on the Constitution. We were in session until half-past one o'clock this morning, and we worked constantly from the time of the adjournment of the Convention up to the time that I have just stated, and we have only got about one-third through with the Constitution, without having been able to revise the work that we have done; and I would suggest that the committee be allowed to withdraw from the Convention, if there is nothing of vital importance to act upon, so that they can proceed with their work as rapidly as possible. I think that we can then be able to make a report this afternoon.

Mr. YOUNG, Vice-President.—I understand the gentleman from New-York to say that the committee desire to absent themselves from the morning session to complete their work.

Mr. BLACK (interrupting).—It is not necessary to make a motion. The committee have a right to absent themselves, and report progress on their work.

Mr. PANNELL.—If it is the wish of the gentlemen of the Convention, the Secretary of the committee, Mr. Wheeler, will read the amendments and changes that we have proposed. I am, certainly, disposed to do anything that is desired by the Convention. We have not had an opportunity to compare our work, however.

Mr. BUCKWELL.—I think this business of arranging the Constitution is the head and front of our labors. It is essential that the matter should be done, and done well. We appointed a committee to facilitate that work, and it requires all the time possible to finish their work. I hope, therefore, that these gentlemen may be excused.

Mr. CHURCHILL.—I believe that the committee are all desirous of being present in case business of importance should come before the Convention. I think, therefore, that we might adjourn until the afternoon session, if there is nothing before the Convention.

Mr. STOVER.—This is now our third session, and as yet but little has been done save the appointment of the committees, and what has been done by them in the committee-rooms. I understand that the Committee on the Revision of the Constitution were to report as fast as they proceeded with their labors, so that the Convention could take up their work and adopt or reject such portions as they might deem proper. If we adjourn now, a large number of the delegates, who are not on committees, have nothing whatever to do in advancing the labors of this Convention. I do not see why we cannot have them report to the extent that they have completed their labors, which I understand comprises four articles of the Constitution. We can act just as understandingly on them as if we had the remainder of the articles. We can then, after acting on that portion of their work, adjourn, and give them sufficient time to give us another portion of their work, if not entirely completed.

Mr. CHURCHILL.—Our report thus far is very incomplete, and we don't know, without revising it, but that there may be contradictions in it. I am willing, however, if the gentlemen desire, that the report should be read.

Mr. YOUNG.—If there is no objection, the Secretary will read as far as the committee have gone in their work.

*Probably a considerable portion of these amounts will be remitted to the Treasurer before this report is published.

THE TELEGRAPHER SUPPLEMENT.

MR. STOVER.—I move that as fast as the articles are read that action be taken on them.

Agreed to.

Article I. was then taken up and read by sections, and finally adopted, leaving out "Local Director for each place, city or village." Considerable discussion ensued in regard to this matter, which was participated in by Messrs. Bliss, Maynard, Churchill, Stover, Collamore, Black, and Up-ham.

At this juncture Mr. Stover moved that no member should be allowed to speak more than twice on the same subject.

Agreed to.

Article II. was then read by the Secretary.

MR. PANNELL.—Our work is now in a very crude state, as we have had no opportunity to compare it. We throw it broadcast into the Convention, and, of course, allowances must be made for omissions, and for the crudeness of the report generally.

MR. BUCKWELL.—I notice that a change has been made from twenty-five to fifty members, but that each District is entitled to one representative. I think this will lead to a great many small Districts. Five members in a small District will have the same power in this Convention as a large constituency would. I think these small Districts should club together in their representation.

MR. BLACK.—We might insert that no District have less than twenty-five members.

MR. BUCKWELL.—I think these small Districts should club together. That is the only way.

MR. BLISS.—The Chicago District has instructed its delegates to advocate one delegate for each twenty-five members, and one to fifteen excess. We come here with these express instructions.

Objection being made, this matter was laid over, and the Convention proceeded with the Constitution.

MR. COLLAMORE.—I move that the next article be considered by clauses.

Agreed to.

MR. BLACK.—This matter coming up again, I move to amend so that each District, to be entitled to representation in the Convention, shall consist of at least twenty-five members.

MR. CHURCHILL.—I move to amend still further, so that each District shall have at least twenty members.

MR. THODE.—I move an amendment to the amendment that we insert "fifteen" instead of "twenty."

Messrs. Stover, Maynard, Black, Churchill, and Pannell discussed the subject at length.

MR. PANNELL.—I have as much confidence in fifteen members as I have in a hundred or a hundred and fifty, when at least one-third of them are competent to occupy seats in this Convention. I hope every member of this Convention will vote to support fifteen men, provided they are competent.

The question of fifteen members was then laid before the Convention, and the amendment was adopted.

MR. BLISS.—I move to amend in Clause 4, to make it thirty-five and twenty instead of fifty and twenty-five.

The question coming before the house, a vote was taken, and the motion was lost by a vote of twelve ayes to fifteen nays.

The whole clause was then adopted.

MR. ZEUBLIN moved to amend in Art. II., Sec. 1, Clause 6, as follows: after "first Monday in August," "or at as early a day following as practicable."

MR. COLLAMORE.—There is one point in this matter which strikes me rather unfavorably, and it is this: it may do very well in a District where the members are all in one place, but in a District where the members are scattered it will be impossible.

The point I want to call your attention to is this: suppose when the votes are opened there is found to be no election. This same thing has got to be gone through with again. How long will it take to go through with an election? Perhaps two or three months. How is the delegate to be elected, suppose that the time of the meeting of the Convention arrives, and there is no delegate elected? I think the present way of electing delegates is just as good as any. I am opposed to any change.

MR. SCULLY.—The point taken by the gentleman from Maine is a very good one. I would say that I think the clause as it stands here is sufficient for all purposes. I

move that it stand as it is in the original Constitution. I think a motion to that effect is in order.

MR. MAYNARD.—I move that the amendment of the gentleman from Indianapolis be laid on the table.

Not agreed to.

The amendment was then adopted.

MR. MAYNARD.—I move that the entire clause (8th) be stricken out.

Not agreed to; and the clause was then adopted as amended.

Clauses 7, 8, 9, and 10 were then adopted as reported by the committee.

An additional clause, to be Clause 7, offered by Mr. Churchill, was adopted after considerable debate.

Section 2 was taken up, and adopted without amendment.

Art. III. was then read and adopted.

Art. IV. was read by the Secretary.

MR. BLACK moved to amend in the clause which requires the Treasurer to give bonds to the extent of \$7500, to make it \$8000.

MR. BLACK.—I think the whole thing as it stands is a farce, and an amendment is necessary. I think that \$7500 is entirely too much.

The amendment of Mr. Black was lost.

MR. BLACK.—As the gentlemen do not favor my previous motion, I therefore move that good real estate security, to the amount of five thousand dollars, be asked as security from the Treasurer, instead of seven thousand five hundred dollars, as at present.

The amendment was not agreed to, Mr. Black alone voting in the affirmative.

Art. IV. was then re-read, and adopted as a whole.

MR. WHEELER.—I wish to suggest that inasmuch as the Committee on Editor's Report, the Committee on the Constitution, and the Committee on the President's and Corresponding Secretary's Reports, have not yet finished their labors, I think it would be wise to adjourn until the afternoon session, in order to allow them time to finish their duties, and thus be able to bring the business of the Convention to a close. I therefore move that we adjourn until this afternoon at three o'clock.

MR. BLISS.—I wish before we adjourn to ask one question. I am on the committee to purchase commutation tickets. What is the wish of the Convention in regard to this matter? Shall I proceed immediately in regard to it, or has any gentleman a suggestion to make?

Mr. Bliss was authorized to purchase the tickets at as low a rate as possible.

Mr. Wheeler's motion to adjourn was then agreed to, and the Convention concluded its morning labors at a quarter to twelve o'clock. Adjourned.

Thursday Afternoon.

VICE-PRESIDENT YOUNG called the Convention to order at half-past three o'clock. A quorum of members present.

The first business in order being the reading of the proceedings of the morning session, Mr. Black moved that they be dispensed with, which was adopted.

MR. PANNELL.—The Committee on Constitution is ready to report.

The reading of the Constitution was then continued by the Secretary of the committee, Mr. Wheeler.

Article V. was taken up, and adopted without amendment.

Article VI. was then read.

MR. BLISS.—There is one section which I think is not practicable, which relates to the vote of two-thirds of the members of the District. It will be impossible to get a vote of two-thirds of the Chicago District.

MR. WHEELER.—How do you get a two-thirds vote in case of an election of a delegate?

MR. BLISS.—That is a more important matter, and it can more easily be attended to than a trivial matter.

MR. BLACK.—Is it not distinctly understood that it does not require a majority of two-thirds of all the members? I think it requires two-thirds of a quorum, or two-thirds of all the members present.

MR. CHURCHILL.—I think too much latitude has been given in this matter of electing members. It is absolutely necessary to get a vote of two-thirds of the whole District before a member can be admitted into the Union.

MR. MAYNARD.—I move that each clause in this article be acted upon separately.

Agreed to.

Clauses 1 and 2, Section 1, were then adopted.

MR. BLACK.—I move an amendment to Clause 3, by inserting "two-thirds of the members present."

MR. YRACLE.—That amendment will cause great dissatisfaction amongst the members of the Union. Those members who live so far away from the District that they cannot be reached will have no say in the deliberations, and I am afraid that the passage of this amendment will cause a great many very good members to quit the organization entirely.

MR. BLACK.—I think those who are present will be able to judge all those who apply for membership.

MR. McDILL.—What do you do with the country members who belong to the District? I am decidedly opposed to the amendment.

MR. BLISS.—I hear members of different Districts saying they have frequently to adjourn for want of a quorum, and that they never have a quorum unless an election for officers is to take place. It seems impracticable to me that we should be required to send letters to all the members in the District whenever a person is to be admitted. I think that by referring it to a committee of three it would reach THE TELEGRAPHER and then be made public. It would thus save a great deal of useless expense. A person has no right to participate in the proceedings unless he has zeal enough to attend to the meetings. There are plenty of members who never attend their meetings, and I do not think it is right for them to have any say unless they choose to be present.

MR. BLACK.—In my life I have belonged to some two or three secret organizations, and other associations almost without number. This is, however, the first one in which I ever heard such an idea as all members voting without being present. I belong to an association where there are one hundred and fifty members, and we have elected members when there were only eight in the room. That action was as binding on all those who were away as on those present. If members are not present they must place the business in the hands of those who are on hand.

MR. MAYNARD.—One gentleman says there is a good deal of murmuring amongst non-resident members. They are allowed to vote if they are present. I have never heard any murmuring whatever from the non-residents in my District, and more than one-half of them are non-residents. Very many of our non-resident members are the most active we have. I would favor the amendment that has been offered. It seems to me that if a quorum is capable of doing anything, it is able to elect members very well. I hope this amendment will be adopted.

The amendment was then adopted, and also the entire clause. Clause 4 read and adopted.

Article VI. was then re-read.

MR. BLISS.—I move to amend Article VI., Section 2, by striking out the words, "in case of sickness."

The amendment was adopted and also the clause.

MR. PANNELL.—I regret to state that I have just received a dispatch from New-York calling me home to-morrow morning. The gentleman who took my place is obliged to leave, and I feel myself in duty bound to return at the specified time in the dispatch. I therefore ask to be excused from further serving on the committee, as I shall leave the city to-night, and also to express my regret in having to leave you so suddenly.

The gentleman from New-York was excused from further attendance on the committee and Convention.

By common consent the revision of the Constitution was postponed.

MR. STOVER.—The committee to whom was referred the report of the Editor of THE TELEGRAPHER is ready to report.

VICE-PRESIDENT YOUNG.—The committee will please present their report.

MR. STOVER, chairman of the committee, then read their report as follows:

"Report

"Of the Committee to whom was referred the Annual Report of L. H. SMITH, Editor of THE TELEGRAPHER.

"BALTIMORE, Sept. 13, 1866.

"Your Committee respectfully submit: That we regard THE TELEGRAPHER as the sheet-anchor of our Association. It is our exponent, and should be the independent and

fearless defender of our interests. The enterprise and energy displayed by Mr. L. H. Smith in originating and conducting THE TELEGRAPHER for the past two years, the large amount of labor actually performed by him without remuneration, and the deep interest which he has always exhibited in the advancement of our welfare entitle him to our heartiest thanks and most grateful remembrance. And here we would respectfully urge upon every member of our Association the necessity of aiding in every way possible the Editor of our organ in his efforts to render it an able and acceptable representative of our interests, and to this end *every* member of the Union should be a subscriber of THE TELEGRAPHER, making annual payments of his subscriptions, *in advance*.

THE TELEGRAPHER is the property of the UNION, and the failure of its Editor to fully meet the views of a member should not be considered sufficient reason for the withdrawal of his support from it. Such a course, if generally followed, might lead to its death, and possibly endanger the existence of our Association itself.

"We would further suggest that the general interest in the paper will be greatly enhanced if every member should forward to the Editor for publication such original and selected articles as may prove of interest and service to the UNION.

"For reasons deemed sufficient by the committee, but which they do not consider necessary to set forth at length in this report, we do not believe it expedient at this time to change THE TELEGRAPHER from a semi-monthly to a weekly paper.

"We cannot agree with Mr. Smith that unless an editor is elected who shall devote his whole time to the conduct of the paper it will cease to exist. We have sufficient confidence in the zeal and ability of our members to believe that the paper could and would be (in case of necessity) conducted gratuitously by them, and that in no possible contingency will it be allowed to die.

"While we are anxious that the Editor of THE TELEGRAPHER shall be entirely untrammeled and independent in the conduct of the paper, we do not think it either necessary or advisable to assume the payment, to any party, of a sum sufficient to secure his whole time and attention.

"We find that the actual expenditures for THE TELEGRAPHER, in excess of receipts, amounts in the last year to about seven hundred dollars, and in this calculation the Editor's salary is placed at only three hundred and fifty dollars.

"It is, in our opinion, of vital importance that we should carefully guard our organization from incurring any liabilities it may not be able to meet. Debt is no less a curse to an association than to individuals, and from the moment we incur it we may surely date our decline and fall.

"We court no quarrel, yet, recognizing the indisputable fact fully proven by our experience, that our individual interests are materially improved by competition in the telegraph business, we would recommend to this Convention to declare the Editor of THE TELEGRAPHER free to oppose a monopoly, and to advocate competition whenever in his judgment it is politic and advisable so to do. In conclusion, we call upon every member of our organization to exert his utmost efforts and influence to increase the subscription list of THE TELEGRAPHER, and to render the most efficient aid possible to add to the ability, literary merit, and general interest of its columns.

"Let us make an united and determined effort to render THE TELEGRAPHER what it should be—an organ in which, as members of the Union, we can all take a just, personal pride.

(Signed) " J. W. STOVER,
 " A. L. WHIPPLE,
 " W. STEINHOFF,
 " Majority of the Committee."

The report of the committee was adopted.

MR. BUCKWELL.—I would state that the limited time given me since the adoption of that report by the committee has been insufficient for me to make out my minority report. I do not altogether approve of the report just adopted. I do not altogether agree with the wording of the report. The man who owns stock in the telegraph companies should not be influenced by operators as to the disposal of that stock. If the owners of two companies wish to unite their business, I do not think the operators

can have any say in the matter. This report appears to be leaving it to the discretion of one man to get the Union into a collision. At the same time, we all know that the consolidation is unfortunate for all of us, and injurious to our interests. I would disapprove of leaving it to individual discretion to fight this matter. Another thing was having THE TELEGRAPHER controlled by a person engaged in no other business, and not in any way engaged in the telegraph business. I concur with the Editor's recommendation to a great extent in that matter. I think to publish a paper such as we desire to have requires more attention than a man who performs his regular duties in an office is capable of giving. As regards the salary I have come to no definite conclusion.

MR. STOVER.—If we have no business before the Convention, I suggest that we settle this matter of THE TELEGRAPHER now, or so far as practicable. I supposed that this report would draw forth considerable discussion. I think it would be very proper for us to decide the salary to be given to the Editor now.

MR. BUCKWELL.—I learn that there has been some mistake in the action of the committee, in stating that THE TELEGRAPHER did not pay last year. I carefully examined that matter, and came to the conclusion which the majority of the committee did. I should like to hear the views of Mr. Smith upon the subject, so that, if possible, he can explain where we are wrong.

MR. SMITH, the Editor, by consent of the Convention, then made the following explanation.

MR. SMITH.—It will be almost impossible to give an accurate account of matters. It is rather difficult, at present, to give an exact statement of the finances. The expense of \$165 for paper, charged in last year's account, does not legitimately belong to that account, as a great portion of that article will be used for the paper this year. I say this to show that without a great deal of fine figuring it will be impossible to report the exact condition of the finances of the paper. It is my firm opinion that the paper has more than paid expenses, and in about the same ratio as it did last year. The committee have also included in the expenses of the paper the Editor's salary. The Editor has never understood, until the committee suggested it, that the salary should be included in the expenses. That is where one of the differences exist between the committee and myself.

MR. STOVER.—In regard to our representation that the expenses of the paper have exceeded the receipts to the extent of \$700; of course we included the salary of the Editor of that paper. That salary is voted him for the management of that paper, and for that only. I cannot see in what other place the Editor's salary can be placed, unless for the publication of that paper. We placed it there at \$350. At the last Convention the positions of Treasurer and Editor were arranged in such a manner that the two positions were filled by one person at \$600. It is the sum voted and paid for that purpose. I cannot make from the report the Editor submitted anything different, nor can I see how it can be made to appear that the paper was self-sustaining last year. The Editor in his report shows there was a certain sum of money on hand from the receipts of the last volume. That sum of money does not properly belong to the receipts of the paper for this year, and we do not so include it.

MR. KELTY.—To bring the subject before the Convention, I move that the salary of the Editor of THE TELEGRAPHER be \$600.

MR. WHEELER.—I move to amend by making it \$800.
MR. SCULLY.—I amend that motion, Mr. President, and make it \$1800 per annum.

MR. SCULLY (continuing).—I have a desire to place the Editor of that paper in an independent position. I wish that he should speak the sentiments and advocate the interests of this organization. The paper, if properly edited, would be self-sustaining, and perhaps leave a balance over \$1800 at the end of the year in favor of the Union. A paper, if worth anything at all to this Union, is worth paying the Editor \$1800 for, and that is little enough. I want to make him independent in his principles. I believe we can sustain an organ, if we desire, and do it handsomely too.

MR. BLACK.—It is well to calculate the cost of this thing before we begin. I have been in such predicaments before. We propose to pay \$1800 for editing the paper,

which is more money than is paid to the managing editor of *The New-York Tribune*. It is also paying at a very high figure, in my opinion. Leaving the extravagance of the price out of the question, can we afford it from our receipts? The expenses of this Convention alone will be \$1000. I protest, then, on the ground of economy, and that it is too extravagant a price for the services rendered for a one-horse paper. If there are not too many amendments, I would like to offer an amendment to pay \$850.

MR. YOUNG.—The amendment is not in order.

MR. SCULLY.—The gentleman says it is a one-horse paper. He also says he wants to study economy. The best way to do is to furnish something that is readable and place it in every family, and thereby derive a revenue from it. Everybody wants to know what is transpiring in the telegraphic world. The public would be glad to know a great deal more of the interests of the telegraphers. If we can find a man who can properly put these interests before us, and properly represent us, that man should receive sufficient remuneration for his services to make him independent of all outside influences, and an able advocate of the Union. I think we ought to make it a desirable paper, and in that way add to the Treasury. If it is a one-horse paper, we want to make it something else; if it is a poor paper now, we want it to be so that you can be instructed from its pages. I advocate \$1800, therefore, because I think it is worth that much to edit that paper.

MR. COLLAMORE.—I would like to make a few remarks in regard to THE TELEGRAPHER. It has been moved to amend that we pay the Editor of THE TELEGRAPHER \$1800 per annum. This is something of an increase from \$200, what it was the first year. The paper has been called a one-horse paper. It has been edited the last year for \$350. The gentleman who has had charge of the paper, we all believe, has given it all the time and attention he could, and made it all that he could. We propose now to give a man \$1800 to make it what we think it ought to be. Now it seems to me that there is a great difference between \$350 and \$1800 that we propose to pay. In any event, Mr. President, it is not proper, nor is it right, to pay such a large sum as \$1800. I hold in my hand a little document on the expense of THE TELEGRAPHER last year. Happening to be where this business was going on, I took the trouble of taking last year's report of the Editor, and comparing it with the report of this year. The expenses are published in the supplement. The receipts were \$2672.42. The receipts reported this year are sufficient to make the whole receipts \$4415.84. The whole expenses of last year reported were \$2894.42, and the expenses of this year, including the salary of \$350, make the total expenses \$4752.48, showing a loss of \$336.59.

Now it seems to me, Mr. President, that the paper has disappointed us. I do not believe there is a man living who can take that paper and make it pay the sum of \$2000. I do not believe it lies in the whole body of the telegraphic community to do it. I have one other proposition to make, and that at the proper time and in the proper place. I propose to suggest the name of a gentleman as Editor of that paper, who, so far as his position is concerned, is entirely untrammeled. He can devote sufficient time to it to make it what we want it, and I believe he has the ability, and I know he has the will, and everything that is necessary to make the paper what we would hope to see. As I understand him, he is willing to undertake this work for \$800; and I believe, Mr. President, that this is the best thing we can do. That gentleman is placed in such a position that he can have the paper printed just as cheaply as it has been printed. He can command as much labor, and devote as much talent as has been brought to bear upon the columns of that paper; and I believe, sir, he is as much acquainted with the subject of telegraphy, the vital subject that we are supposed to discuss in that paper; and, sir, I believe he is better posted than the gentleman who has conducted it the past two years; and further than that he is intimately connected with the men who have been most interested in the carrying on of the telegraph since it was first introduced into this country, and of course he could tell us what many of us have never heard. As I said before, at the proper time and place, I shall urge upon the Convention the claims of this gentleman.

MR. KELTY.—I made the original motion, Mr. President, to bring this matter before the Convention, and for no other purpose. I now, therefore, withdraw my motion to make

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the salary of the Editor of THE TELEGRAPHER \$500 per year.

MR. MATNARD.—I move that the Convention resolve itself into a Committee of the Whole on the subject of THE TELEGRAPHER, and that the business be transacted in secret session.

Which was adopted.

And the Convention went into Committee of the Whole on the subject of THE TELEGRAPHER, Mr. Black, of Philadelphia, acting as Chairman of the committee, and Mr. Thode as Sergeant-at-Arms.

* * * * *

MR. BLACK (Chairman).—The committee will please come to order.

MR. KERNER.—I move that the persons present who can be vouched for as members of the National Union be allowed to remain.

The motion was agreed to.

MR. BLACK (Chairman).—As I understand it, the object of this committee is to take into consideration the condition of the affairs of THE TELEGRAPHER in general.

MR. BLISS.—Can all present be vouched for?

MR. KERNER.—I can vouch for all those who appear to be strangers to the Convention.

MR. BLACK.—Now, gentlemen, if you have any propositions to make, please let us hear them.

MR. WHEELER.—I move that the salary of the Editor of THE TELEGRAPHER be fixed at eight hundred dollars per annum.

MR. PAMPLIN.—I move to amend by making it fifteen hundred dollars.

MR. BUCKWELL.—This is a subject of vast importance to all of us, and we should hear the views of all. A salary of eighteen hundred dollars is more than there is any necessity of giving. An editor of this paper can attend to the business any hour of the day. The duties are not like those of a telegrapher, who has to work ten or twelve hours per diem. The Editor of the paper can leave his business for days or even a week at a time and then get through it all. It is paying him much more than a majority of this Convention are now receiving for their services, and with much lighter labor. It has no comparison whatever with the duties of a telegrapher, although, as the gentleman from New-York remarked, we want to pay a good sum to get a good man.

MR. KERNER.—In order to know how to act in this question I would like to know if the services of Mr. Smith can be secured in any manner or at any price?

MR. BLACK.—The only way to do is to ask Mr. Smith himself to-morrow.

MR. SCULLY.—Before you put the question, Mr. Chairman, I should like to make a few more remarks. One of the gentlemen here advocates a cheap paper. I fancy he also advocates giving it to a cheap man, else he would not ask for a cheap price. The paper is one that must be made valuable to the Union in carrying out its objects, and if a gentleman can do this and live on eight hundred dollars he must indeed be a cheap man. If he has talent enough he will not confine himself to eight hundred dollars. I am also opposed to that paper being taken away from New-York. New-York is cosmopolitan and the great fountain-head of all things, telegraphing included. New-York should be the place for it, and the Editor should be a New-York man. To take it away from New-York would be to kill it and kill the Union. We want talent for that paper, and I think we have it in New-York, to conduct it properly. There are plenty of other men there who can conduct the paper with talent and ability. There are men in New-York who can secure all the influence required to bring it out in a proper light. To such a man I propose that that paper shall be given, and I would say that if he has the talent to place it in the front rank of periodicals he has too much talent to be paid eight hundred dollars or less, or anything short of eighteen hundred dollars. It is not too much. I doubt if you can find any man of any importance who receives anything less than fifteen hundred dollars, and although a gentleman asserted here that John Russell Young, the managing Editor of *The New-York Tribune* did not get that, I happen to know better. I think the gentlemen present will see the necessity of keeping the paper in New-York.

MR. COLLAMORE.—Allow me to make a few remarks in reply to the gentleman who has just taken his seat. We all know that New-York is a great town. It is cosmopol-

itan, and that is what has ailed THE TELEGRAPHER for some time. It is *too much* so. If we can galvanize it a little and use a little *provincialism*, it might do it good. We very well know that the paper has not been properly conducted during the last year; that it is not up to our ideas. We believe, sir, however, that it can be so conducted, and further than that, we think we know the man who can conduct it so; and further than that still, we know that we can have that paper conducted for eight hundred dollars per year; and further than that, we do not expect our man to devote his whole time and attention to it, and did not so state it. I state that the man whom we propose is *untrammeled*. I distinctly say so now. We think it is not necessary that it should be published in New-York. The gentleman says that if the paper is taken from New-York it will die. My opinion is that if it is not taken from New-York it will give up the ghost. I believe, sir, that this thing can be carried on for eight hundred dollars, and carried on as every well-wisher of this Union wants it to be. I know, Mr. Chairman, that this gentleman whom we propose can do everything that is needed. There has been a great deal of dissatisfaction in my District with reference to the conduct of THE TELEGRAPHER during the past year. It is a telegraph paper, but it is not *telegraph* enough. We do not see much of the telegraph in it. We want something said about telegraphy, and the gentleman we advocate can do it.

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I want to be understood as advocating this thing on the score of economy, as I believe we cannot afford to pay over eight hundred dollars. I hardly believe we can afford to pay that. I believe if it can be done for eight hundred dollars, however, it is best to strain the point and do so. I do not wish to argue in behalf of any section or anything of that sort. I do not care whether the Editor resides in San Francisco or Calais. We want a man of talent and ability, and he is the one I intend to propose. Him we can well afford to pay.

MR. BLISS.—I have a few remarks I would like to make to this committee. Some six months ago I was talking with a leading editor of the leading paper of the Southwest, whose circulation is as large as all others of the Southwest. He is a reader of THE TELEGRAPHER, and knows what it is, and he is competent to judge what an editor should be. He is a man who has been an editor for the last twenty years. I asked him what he supposed was a fair price for the Editor of THE TELEGRAPHER to receive. He said six hundred dollars was a large price to pay. He said the Editor of that paper should be a telegrapher. He said, to make it as it should be, that the Editor should be connected with other papers. He should be an editor and also understand telegraphing perfectly. It would not require over three hours of his time each day. If that is the case, I do not see any necessity for a person devoting his whole time to that purpose. We should have a person of some experience in the newspaper business. That is what we want.

I look upon this matter as being one of economy. I look upon six hundred dollars as sufficient. I think that is a fair estimate. I believe that there are about six thousand telegraphers in the country. Suppose that all take this paper at two dollars per annum, and that would be twelve thousand dollars per annum. There are some whose salary will not allow them to take it after paying their general expenses. Seven thousand dollars, I think, are the largest receipts we can expect from this source. To add eighteen hundred dollars to our expenses in my mind is foolish, and I do not believe it should be done until every Territory is a State, and telegraphy extends over the wild regions of the West. We may then perhaps offer that amount, but until such is the case I think that six hundred dollars is sufficient, and the highest that I will advocate. I believe a person can do it at that price and be a good telegrapher beside.

MR. PANNELL.—I arise to make a few simple remarks in regard to this matter, and I do not intend to deal in personalities, or anything superfluous, or to advance any strange idea in regard to the editorship. We all know we have no criterion to go by here. Mr. Smith has rendered us all the service in his power, trammelled on all sides as he has been by other business, and he has been surrounded by influence of business which he could not afford to give up. Gentlemen, I have faith in your judgment. But al-

though I believe this, I have seen too much of the editorial line of duty to suppose that we can get a good man to give his undivided services to this paper for eight hundred dollars; but, as I said before, I have perfect faith in your judgment. If you think you can throw that paper in a gentleman's hands at that price, and that it will realize what we wish it to, I certainly have no objection. My visit to Baltimore has done me much good. I have never been what I should have been in this organization. I have felt, I am sorry to say, a great lukewarmness ever since my connection with it. But there has been a great change in my feelings. Although I leave you suddenly to-night I will carry the remembrance of my visit to Baltimore with me to the day of my death, and I will recollect it as the most pleasant time ever spent outside of my own home. I will go to New-York to-night with a determination of devoting all my energies and what little influence I have to the good cause of this UNION. I love the profession. (Applause.) I have spent the best years of my life in it, and have made a great many sacrifices for it. At the same time I have not done my whole duty in the UNION. I hope in future that it will spring up beautiful in influence and great in numbers; and, at the same time, I hope we will adopt a Constitution and By-Laws in which we can assert our rights as men and not be trammelled by the influence of politicians or cliques either inside or outside of the profession. At the same time I believe that labor and capital are identical. A great many telegraphers have an idea that although they work hard that all the labor rests with them. The men that rule our companies, although they have a great many narrow ideas, still they are laborers too, and I believe that right will triumph in the future. But if we are to have a gentleman to edit this paper, outside of the UNION, as I have understood was the idea, and get his services for eight hundred dollars, it is more than I can understand. But if the Convention decide that there is any one man here who can devote the proper time to that paper, and edit it as it should be to be the organ of this UNION, then I will support that man.

MR. COLLAMORE.—The gentleman has just made a remark that I have never thought of before. He says that he understands that a man outside of the UNION is to be taken as the Editor of this paper. I never heard of such a thing before. I therefore move that "no man outside of this UNION be elected as Editor of THE TELEGRAPHER."

MR. STOVER.—I have listened very attentively to this discussion, and it gives me the greatest gratification to witness the deep interest manifested. It assures me that this subject stands very properly in the minds of the members of this Convention, and that they consider it one of vital importance to our organization. I am glad that we have had this very general expression of opinion, I trust that whatever decision is made, whatever may be the final result, and whoever may be elected to take charge of that paper, every member of this organization is fully determined to support him to the utmost of his ability. I am sorry to have heard the allusions that have been made in reference to the past course of the paper, and the reflections on the ability with which it has been conducted. Boston District has a right, Mr. Chairman, to feel aggrieved by the course pursued by that paper; but there has never been any vindictiveness shown, and no delegate in here to say, from that District, aught against its past career, or its manager, but we propose from this time to commence anew. It is our duty to look forward hopefully, and to exercise our just rights and opinions in regard to the future course of the paper, and whatever gentleman we shall select, whoever may be appointed, he will, of course, receive opposition. Whenever we have a paper so managed that it shall be unanimously supported and approved, we shall then have something in the literary world which may well be regarded as a miracle and a wonder. Such can never be. For myself, Mr. Chairman, I propose to discuss this thing candidly. I did not come to this Convention to get members into caucuses that I might be elected to the management of that paper; but, feeling the honest conviction that we cannot assume a liability to the extent of eighteen hundred dollars to place that paper outside of our organization, I felt it was necessary that some man should come forward who would take it for a much less sum than eighteen hundred dollars, and that he should sacrifice something for the good of the organization, and expect such a salary as this organization can assume to pay. Allusions have been made here

which have been entirely uncalled for. They talk about a cheap paper at eight hundred dollars, and a *cheap* man who would accept eight hundred dollars as the manager of that paper. It was entirely uncalled for, to say the least. Men, before this, have worked, and have made sacrifices, not for money, but for no other object than the welfare of some organization, or some principle for which they may have had a deep and an abiding interest. Give this organization a paper independently managed, a paper edited by a man untrammeled by any one, who can fairly and truly advocate the interests of the members against any company or monopoly that exists, and we have all we want. It makes no difference whether he comes from Boston, New-York, or Chicago. I was assured before I came here that there were parties in New-York who would join hands with parties in Boston, and conduct that paper for a small sum, and in that way I think, with the talents of the two cities, we might have a paper ably conducted, and at the same time cheaply maintained. The ideas of the gentleman from New-York I have listened to with great deal of interest, as they are generally well put, and I trust that the management of that paper will rely upon such men as he for assistance, and that he will support it. The idea that a paper outside of New-York must necessarily be provincial, that it cannot be sufficiently cosmopolitan if it is published elsewhere, is absurd. We want a paper devoted to the interests of the telegraphers. We propose to look to the interests of telegraphers in the UNION and everywhere else. If we can have a paper conducted in the best interests of the organization and have it conducted for less than eighteen hundred dollars, I think that it ought to be done. It might be possible that better talent could be secured, and stands ready to apply itself to that particular point—the management of that paper—for fifteen hundred dollars than could be secured for eight hundred dollars, but it is not very probable. The question of vital importance is, if we undertake to pay fifteen hundred dollars—whether we can do so safely, and whether we can rely upon this organization paying that amount if the proceeds of the paper would not clear it. If not, the paper would die. I do not believe there is any man ready to run that paper when he finds he cannot depend upon this organization to pay its running expenses. Whenever the receipts fail to meet the expenditures, then we cannot expect him to keep on. I know my name has been alluded to in connection with that paper. My only desire is that it shall be so placed that it will accomplish the greatest good for our organization. If any man will take it at six hundred dollars or eight hundred dollars, and do well for us, I would willingly give it to him.

Mr. BLACK.—I wish to state a fact. I see but two or three members who were with the first National Convention at Philadelphia. I do not think there are more than three or four certainly. It was then distinctly understood, when this paper was established, that the UNION would not be responsible pecuniarily for THE TELEGRAPHER. That Convention did not assume any of its debts.

Mr. STOVER.—We changed that a little at the last Convention.

Mr. YEAKLE.—I think, Mr. Chairman, that the Convention of which you speak at that time did not properly appreciate the value of THE TELEGRAPHER. We cannot get along without it. We are here for the purpose of making an improvement. The attacks on the paper have nothing to do with this discussion, although I agree with many points in the remarks of the gentleman who has last spoken. Our object is to make this journal entirely different.

Mr. BUCKWELL.—It is not the desire particularly to obtain a revenue. The only desire is that it shall be self-sustaining. Would the gentleman who desires eighteen hundred dollars for his services be satisfied, provided he was guaranteed that amount, if he would have to rely upon the success of that paper for his salary, or the remainder of it over six hundred dollars or eight hundred dollars? If such would be the case, I do not believe there is a gentleman here who would oppose it. Our only object is to make it self-sustaining.

Mr. HAMMOND.—We are in committee now and have a matter under consideration in which we are vitally interested. I think we can have a free and easy talk amongst ourselves. I would like to ask the gentleman from Maine what time he thinks it will really require for the Editor of THE TELEGRAPHER to make it such a paper as he thinks

the profession requires. Has the gentleman formed an estimate?

Mr. COLLAMORE.—So far as my individual opinion is concerned, I do not think it would take over two-thirds of any man's time to edit THE TELEGRAPHER. I know editors of papers, and daily papers, too, and I know just how much time it takes to edit a daily paper. I know also how much time it takes to edit a weekly paper. I believe it would not occupy half of a man's time to edit THE TELEGRAPHER, even if he had to write every word in it.

Mr. HAMMOND.—I entirely agree with the gentleman. I think that one-half of his time can be given, and I think eight hundred dollars is too much. Six hundred dollars is certainly all he should get for that purpose. We know how this trouble about THE TELEGRAPHER commenced. Some three or four months ago documents came into my hands in which charges were made against the Editor of THE TELEGRAPHER that the paper was used in crying down some companies and holding up others. I did not believe it. The charges were false and unjust. It is impossible for an Editor to please all. He will have enemies no matter what he may do or say. I think it will be better to employ a man to do nothing else, even if his time is not altogether occupied.

Mr. BLISS.—How much are we willing to give to-day to pay for editing the THE TELEGRAPHER? Now is your chance to give if you desire. Every gentleman who has any connection whatever with his District knows he has members in his District who can't really afford to pay from what they have. I think that all members of the Union should support THE TELEGRAPHER. I will give as much as any man to carry it through next year. I want that distinctly understood. Six hundred dollars is as much as we should give to the Editor of THE TELEGRAPHER, in my opinion.

Mr. STOVER.—We have met here at this time under very different circumstances from those by which we were surrounded a year or two ago. Since that time the consolidation of the large telegraphic companies of the United States has been effected. This organization to-day does not stand upon as good and as firm a foundation as it did previous to the consolidation, and for very obvious reasons. There are a large number of men in our organization who have to look only to one source for employment. We are not prepared to act to-day as we were then. I claim to be free from any shackles that any company could possibly fasten upon me, and I say now that we cannot safely undertake to publish that paper at an expense of fifteen hundred dollars or eighteen hundred dollars. If there are a number of gentlemen here who will guarantee to the Editor, if its receipts fail to be enough to be remunerative, fifteen or eighteen hundred, or *five thousand* dollars, then it is all right. What does the Treasurer's Report tell us? It tells us that there are three thousand dollars due this organization. I doubt the expediency of making any such movements under the facts as they exist. I do not think it is safe; I do not think it is prudent; and I am surprised that the gentleman who has so well represented us at the head of our organization has for once, and the first time, I think, as far as my knowledge goes, advocated an expenditure which I do not think he could safely advise. When you show me that your members are ready to pay their dues, then I will believe the money will be forthcoming when it is called for, to carry on a paper at such a price.

Mr. HAMMOND.—I am not clear that the receipts for subscriptions and advertisements would justify this increase of salary at present. I think, though, that in the course of a year, or six months, that perhaps it might be done. As I have before remarked in regard to this matter of assessments, you know best whether your constituents will approve of such a measure. It has all been considered in your District meetings, and you therefore know best. At present I shall be opposed to paying more than six hundred dollars to the Editor of THE TELEGRAPHER unless we are to get his entire time, and not then unless we are to see our way through by direct assessment.

Mr. BUCKWELL.—It appears to me you are arguing from the wrong stand-point. We propose to change the paper materially in a great many respects. I believe I could state that I could double or triple the circulation of this paper provided a change was made in its style. I believe

a great many would take it outside of the Union if it was of a different kind.

Mr. HAMMOND.—I should like to hear the views of the various District Directors who are here on this subject.

Mr. COLLAMORE.—I should like to get somewhere near the figures. We propose to pay fifteen or eighteen hundred dollars. THE TELEGRAPHER during the past year has paid nothing. Then we would have fifteen hundred dollars to pay. It is well enough to look the matter in the face. If we have to pay fifteen hundred dollars, I wish to say that my District will not stand it. Suppose, sir, that THE TELEGRAPHER pays eight or nine hundred dollars, and leaves seven hundred dollars to be paid; so far as my District is concerned, I think I may safely say, sir, that such an assessment could not be collected.

Mr. HAMMOND.—The report shows that we have eleven hundred and seventy-three members in the National Telegraphic Union. Last year THE TELEGRAPHER paid expenses.

Mr. STOVER.—I will state for the President's benefit that we cannot ascertain, and cannot put it in a better light, than that the paper was published at a loss of seven hundred dollars last year.

Mr. SCULLY.—I think that no assessment will ever be necessary. I have so much confidence in this paper becoming desirable and readable, that I believe it will increase the revenue of the organization. I think it can be made so desirable that the price of subscription might be raised to three dollars instead of two. That is paid for other periodicals; why not pay three dollars for THE TELEGRAPHER? I feel almost sure that the paper will pay its own expenses and leave a handsome balance in the treasury.

Mr. THODE.—I do not think my constituents will be willing to pay anything towards it, as my District is so very small.

Mr. SCULLY.—I am not District Director in New-York, but I will say from what I have heard that they will be very willing to be taxed.

Mr. THOMPSON.—I coincide fully with the views expressed by Mr. Scully.

Mr. PANNELL.—I have only to say, in my opinion, that New-York will contribute her portion; in fact, I for one will guarantee that the members of the UNION in New-York will pay their portion without a murmur in supporting that journal.

Mr. BLISS.—At the time that THE TELEGRAPHER was so seriously discussed amongst the several Districts, we had several meetings called for the purpose of getting the views of our members. At the principal meeting we only had twenty-five out of ninety members. I think my predecessor as Director (Mr. Chandler) knows something in regard to the collection of dues from that District, and I know must say that it is quite hard to make them pay it. It was resolved by those twenty-five members, unanimously, that the Chicago District would stand a fair share of the expense. We are requested to vote for the same Editor this year.

Mr. CHANDLER.—I have nothing to say upon the question more than to endorse what my colleagues have said.

Mr. MAYNARD.—In consequence of the breaking up of the Military Telegraph many of the members in my District have been scattered over the country, and great trouble has been experienced in collecting dues. I think my District will do all in its power to support THE TELEGRAPHER in every possible way.

Mr. WHEELER.—The District over which I preside is always ready to meet any reasonable demands that the Union may make, and if they thought it was for the best interests of the Union that an independent Editor should be employed at a large salary, the District would pay their share of any assessments that were made. I think it will be found that a majority of the members would have to pay the whole of it, however, as there would be quite a number who would not be willing to pay anything.

Mr. McDILL.—I would state that we passed a series of resolutions in our July meeting which support the present Editor.

Mr. BUCKWELL.—I think that expresses my opinion sufficiently.

Mr. BIGGERT.—I feel satisfied that my constituents would be willing to pay their share of the expenses. I think my District would do everything which was proper and just.

MR. YOUNG at this juncture (5:45) moved that the rules be suspended, and that the session be prolonged until half-past eight o'clock.

The motion was agreed to, and the subject under consideration was then resumed.

MR. WHIPPLE.—The members of Albany District will generally pay any assessment made on them. I was instructed to advocate a change.

MR. ZEUBLIN.—In both the Indianapolis and Greencastle Districts I do not think the members would endure any assessment.

MR. KERNER.—At a meeting lately held in our District the following resolution on this subject was passed:

"Resolved, That the delegates of this District be asked to bring about such a change as will secure a better development of the principles upon which it was founded."

I am in favor of a change myself. I do not think the Baltimore District would instruct me to vote the National Telegraphic Union in debt. I think our District will give as much as any other District, but I hardly think we would advocate paying the salary proposed to the Editor. I cannot vote otherwise than with the spirit of the resolution just read.

MR. REESZ, Detroit.—I will say that my District will submit to any assessment necessary to make our paper a free and independent one. I do not think, however, that we need pay as much as represented by some of the delegates. I think we can get a good Editor at a salary of six hundred dollars per annum.

MR. BLACK (Chairman).—You have now heard the opinions of the representatives from each District. Would it not be well to get the views of the ex-Editor?

The suggestion of Mr. Black was agreed to by the committee, and Mr. Smith, the ex-Editor, then made a few remarks relative to the affairs of THE TELEGRAPHER.

MR. SMITH.—I feel under great obligations to the members present for their desire to hear me address them in regard to the present subject, and I regret also that they did call on me, as I did not wish to enter into the debate.

I will, however, try to make a few explanations of my manner of conducting the paper. My time has been fully occupied during the day with my telegraphic duties, and I have worked two, three, and four hours every night without having any time to myself. I therefore purpose not to have anything to do, hereafter, with the paper. It is my opinion that if the paper is placed in the hands of somebody who has nothing else to occupy his attention the receipts of it will be doubled, and I think possibly tripled. This can be brought about by an earnest attention to securing more subscriptions, increasing the price of advertisements, and having more of them, and having them inserted more frequently. Thus far I have not asked for any advertisements. I have heard the complaints made. There was no provision made by the Convention whereby the UNION would assume the expenses of THE TELEGRAPHER. When the receipts fail there is nothing to keep it up. Of course the Editor would have to assume the debts if it should fail of support. The Convention, if it so desired, could assume those debts. I do not think it is material whether it is published in New-York or not. It makes very little difference where it is published. The great point is to have somebody who can give his undivided attention to it; who can catch every passing notice; who can take every item, and who can so arrange and supervise the composition of the paper as to make it the most acceptable to the largest number of its readers, and also be able to reduce the expenses of its production by doing some of the services himself. In that way the receipts may so far increase as to not only pay the expenses of its publication, but also the salary of the Editor. It will relieve the Union of the expense of paying the salary of the Editor, which it has done for the last year. I think we have now about one thousand subscribers. The expenses of the paper are about twenty-four or twenty-five hundred dollars.

MR. BLACK.—Mr. Smith confesses that the net cost of the paper is about twenty-four hundred dollars per annum. Now add fifteen hundred dollars to that, and we will call it thirty-nine hundred dollars. Now, granted every member paid two dollars for the paper, and still you would have a deficiency. I do not believe I could get twenty subscribers in the Philadelphia District for that paper.

MR. PANNELL.—My friend appears to be laboring under the difficulty of expenses, and perhaps it is all very well to be so. We expend \$3000 and we have an organ. I hope the gentleman will look at the good results, as well as at the enormous expense.

MR. MAYNARD.—The delegates from Washington District have requested that the Editor should be independent of all telegraphic interests, and that he receive a salary not to exceed \$1500, and that the paper should not be moved away from New-York city. The committee in their very able report called the paper the sheet-anchor of the UNION. The leading men of the Washington District are very earnest in their support of THE TELEGRAPHER, and use every effort to increase the subscription-list. A great deal has been said about being able to edit this paper for \$600 a year. I have known editors of daily papers who would work half a day and be drunk all the rest, but their paper would not be edited very well. If \$600 will pay the salary of an editor and improve his paper *some*, I think that \$1500 would improve his paper a great deal more. It is said we have a great deal more to contend against. If this is so we have to increase our energies to the same extent. I do not think there is much risk to run. Of course there is some. I don't think, however, that it is very dangerous. We have about \$2800 in the Treasury; not one-half of that will be paid for the expense of this Convention. The receipts of the Treasury will no doubt be increased also. In regard to the subscribers I think we need not depend entirely upon the members of the UNION to take the paper. I believe that a great many more would take it if it was a paper of interest. We want a good Editor, one who has financial and executive as well as literary ability. The gentleman from Boston seems to think it is almost an utter impossibility to raise this money. I have to acknowledge that Washington District is not in as good condition as it might be. I think we would pay our proportion of \$1500, however. I know that the paper must be supported, and it can be made much better than it ever has been. It must advocate the interests of the UNION. I hope this amendment now before the committee will prevail.

MR. KELTY.—I have listened to this matter with much interest, and I am sorry to say that the Baltimore District is behind-hand. We advocate a change in the management of THE TELEGRAPHER. The country members, however, are not willing to pay any more than they can help for THE TELEGRAPHER. The only thing with me in regard to this matter is dollars and cents. What prospects have we, if we desire to pay \$1600 or \$1800, that we can raise this money. For my part, I am willing to pay any assessment the Convention will choose to levy. I do not think, however, we can pay more than \$600 or \$700 for an Editor of THE TELEGRAPHER. I think we should look at the dollars and cents before we make the leap.

MR. KERNER.—As has been said, there have been a great many members who have withdrawn, and they have been some of the most prominent members also, and I am satisfied that the whole cause of it is that THE TELEGRAPHER is not conducted in a manner to satisfy their views. I do not think we are justified in voting a salary of \$1500 when we have no prospect of paying it. If you can show me that in changing the salary of the Editor of THE TELEGRAPHER you can increase subscriptions and make it a good paper, without taxing the members, I will then vote for any amount you may think proper to give. He should be untrammeled, however, by any company. If we can procure a man who will edit that paper for \$800, I think we had better take him, rather than pay a man \$1500 for doing the same thing. We all have the same interest in this UNION.

MR. SCULLY.—We cannot get a man free and untrammelled for \$800, with the necessary talent and ability, who will devote his whole time to it.

MR. STOVER.—I would like to inquire if there is any gentleman who has proposed an Editor to this committee who will take the paper at \$1500 and devote his whole time to it.

MR. SCULLY.—I would say that the object is to have an Editor who is free from all influences in connection with telegraph companies.

MR. KERNER.—We want a man free and untrammelled. I do not think we can afford to pay a man to devote his

whole time to the paper. I think we should get somebody to conduct it fairly and properly.

MR. PANNELL.—I understand the question now before the committee is that the man who will take hold of this paper shall be free and untrammelled from all telegraphic influences. The Editor is also expected to devote his time and attention to the paper, to make it worthy the name it bears. Of course it is not expected that he shall devote his entire time to it; that would be perfect folly. Of course it is expected that he shall perform his duty faithfully; but he is not to be debarred from making an extra fifty or a hundred dollars if he can. We would have no right to expect that.

MR. COLLAMORE.—I would like to know the condition of the Treasurer's report at the last Convention.

The Secretary then read the report.

MR. COLLAMORE.—Most every delegate who has risen here to-day has told of the devotion of his District to the cause of THE TELEGRAPHER, and some of them have read resolutions to sustain the paper. Now, my District, I claim, takes as much interest in THE TELEGRAPHER as any other, and they are paying the expenses of a gentleman in my place while I am here.

MR. UPHAM.—There is one thing that I have been desirous to suggest. We have heard from the District Directors or others who represent the Districts, their opinions or the expressed opinions of the several Districts, as to whether they would be taxed for the support of THE TELEGRAPHER or not. We have seen that a majority of them have said that their Districts were willing to pay for its support. Resolutions, adopted by different Districts, have been read to that effect. But it seems to me that we are forced to the conclusion that such expressions are, in most cases, worthless. Every member stands solemnly pledged to abide by the provisions of the Constitution and By-Laws; to pay his national and local dues. Yet there is already a sum of three thousand dollars due the UNION from its members. We have seen from the Treasurer's report that the amount of outstanding dues for the last year is three times what it was the first year; or that for the last year it is considerably in excess of the first two years. Before attempting to vote it is well that we should take this matter well home to our minds. Our members are pledged to pay the sum of one dollar and fifty cents every three months, yet they have failed to do it. How can we expect then, if they fail on this point, that they will more promptly pay assessments for THE TELEGRAPHER? It seems to me, Mr. Chairman, looking at the matter from this stand-point, that we cannot consistently vote to pay the Editor of THE TELEGRAPHER such a salary as fifteen hundred dollars. I think the Editor should be in a perfectly untrammelled position. No matter how well the paper may be conducted somebody will always be dissatisfied with its management. But a small number of our members are subscribers to that paper. We all desire to see that paper made truly the organ of the National Telegraphic Union. We desire that the man who has charge of it shall represent us fairly and squarely. We want something also which has the *rim* in it. I speak not only my own ideas but those of others whom I have consulted on this subject. We desire to see the Editor of that paper, if need be, lay such facts before the public as will convince them that we stand upon just and true ground, and he should be capable of presenting these points strongly. I think we can get such a man for eight hundred dollars, and if it can be done it is clearly our duty to do it.

MR. BUCKWELL.—The best way is to pay the Editor a regular salary, and it should be edited by a man who is not engaged with any telegraph company. If a man is connected with a company he can be satisfied with a salary of three or four hundred dollars, but if he has nothing else to depend upon he ought to get about fifteen hundred dollars.

MR. SCULLY.—What we want is a man free from the influence of any telegraph company. That is what we desire, and we can get him if we give him a proper salary; say fifteen hundred dollars.

MR. COLLAMORE.—The question has got down now to two men. The gentleman from New-York advocates a man to whom he proposes to pay fifteen hundred dollars. He is to be entirely untrammelled. I propose at the proper

time to name a man who is also free and untrammeled to all intents and purposes, and who will render to that paper everything that it needs and everything that we desire. One offers to do the work for fifteen hundred dollars, and the other for eight hundred dollars.

Mr. Young.—It is not my intention to say anything on this subject. Plenty has already been said to enable the members to form their opinions. I hope the question will be put and decided as there are several committees to meet to-night.

The question of making fifteen hundred dollars the salary of the Editor of THE TELEGRAPHER was then put by the chairman of the committee.

It was moved and seconded that the vote on this question be taken by yeas and nays.

Agreed to.

The vote on the question being taken, it stood as follows:

On Adoption \$1500 Amendment.

<i>Yea,</i>	<i>Nay,</i>
SCULLY,	COLLAMORE,
THOMPSON,	THODE,
PANNELL,	BLISS,
MAYNARD,	CHURCHILL,
KIEFER,	DEALY,
McDILL,	WHEELER,
BUCKWELL,	STOVER,
ELLISON	WHIPPLE,
BIGGERT,	ZEUBLIN,
YEAKLE,	KERNER,
McKENZIE,	KELTY,
PICKERING	REESE,
PAMPLIN,	CHANDLER,
FLACK,	SHOWEMAN,

Ayes, 14. Nays, 14.

Absent.—STEINHOFF.

The casting vote being with the Chairman he voted "nay," and the amendment was lost.

The question then recurred on the previous motion of eight hundred dollars as the salary of the Editor.

The yeas and nays being called for the vote stood as follows:

On \$800 Salary.

<i>Yea,</i>	<i>Nay,</i>
COLLAMORE,	SCULLY,
THODE,	THOMPSON,
BLISS,	PANNELL,
CHURCHILL,	MAYNARD,
DEALY,	KIEFER,
WHEELER,	McDILL,
STOVER,	BUCKWELL,
WHIPPLE,	ELLISON,
ZEUBLIN,	BIGGERT,
KERNER,	YEAKLE,
KELTY,	McKENZIE,
REESE,	PICKERING,
CHANDLER,	PAMPLIN,
SHOWEMAN,	FLACK.

Ayes, 14. Nays, 14.

Absent.—STEINHOFF.

The Chairman voted "aye," and the salary of eight hundred dollars was adopted by the committee.

Mr. Kiefer here stated that he had received a message from Harrisburg which compelled him to start immediately for that city.

Permission was granted the gentleman.

Mr. Young.—I move that the committee do now arise.

Agreed to.

The Convention was then called to order by the Vice-President, Mr. Young.

Mr. Black, Chairman of the Committee of the Whole then stated that the committee in session on the subject of the salary of the Editor of THE TELEGRAPHER for the ensuing year had decided on the sum being eight hundred dollars.

Mr. Young.—The hour of half-past seven o'clock having arrived, and there being no other business before us, this Convention now stands adjourned until to-morrow morning at ten o'clock.

Mr. Kerner, of the Baltimore District, then extended an invitation to the members of the Convention to be

present at a banquet on to-morrow (Friday) evening, at the Eutaw House.

Adjourned.

THIRD DAY.

FRIDAY MORNING, Sept. 14, 1866.

The Convention was called to order by President HAMMOND at twenty minutes past ten.

The roll was called, seventeen members being present.

Mr. Young.—I move that a committee of one be appointed, and the Convention take a recess, to call the committees to the hall of the Convention.

Not agreed to.

The reading of the minutes was dispensed with.

PRESIDENT.—The next business in order is the consideration of the report of the Committee of the Whole upon the salary of the Editor of THE TELEGRAPHER.

Mr. Stover.—I move that the report of that committee be postponed until all the members are here.

Mr. Collamore.—I move that the matter be postponed until twelve o'clock.

The amendment of Mr. Collamore was agreed to, and the subject postponed.

Mr. Maynard.—The committee appointed to revise the Constitution and By-Laws, state that they will report in about an hour, and desire permission to continue in session until that time.

Mr. Buckwell.—If we postpone the report of the Committee on the Constitution and By-Laws we will have nothing to do.

Mr. Bliss.—Are any of the committees ready to report?

Mr. Stover.—I think if the committees will send us such portions of the report as are not likely to cause discussion, so that we can act upon them, they can then continue their labors.

Mr. Black.—The Committee on Resolutions are ready to report, Mr. President.

Mr. Stover.—That is a very important subject, and we should have all our members here when that report is brought up.

PRESIDENT.—There is one difficulty in regard to this matter. Amendments to the Constitution require a two-thirds vote.

Mr. Buckwell.—I move that the committee be requested to send in such portions of their report as they have completed.

Mr. Young.—I think the committee should send down a portion of their report already acted upon. If anything should come up that would create discussion it could be laid over until all were present. A great portion of those amendments will no doubt require little or no discussion.

Mr. Black.—I think it would be absolutely necessary that the Committee on the Revision of the Constitution should be present, in order that they may explain certain obscure points to the Convention.

Mr. Maynard.—I think if any important business should come up the members of the committee would like to be present. They simply wish to know the desire of the Convention whether they shall report upon what they have already done, or whether they shall continue their labors.

Mr. Stover.—I move that the Committee on the Revision of the Constitution and By-Laws be requested to report.

The motion was agreed to, and the committee requested to report.

Mr. Zeublin.—I have a communication which I should like to present to the Convention, in regard to the District of Indianapolis.

Leave was granted by the Convention, and the gentleman read the communication, as follows:

"To the Members of the N. T. U. Convention, in session at Baltimore:

"We, members of the Indianapolis District, feel that we occupy a very unenviable and dishonorable position, not of our own making.

"Our deplorable situation was entirely produced by the gross mismanagement of our late District Director, who,

in return for our unlimited confidence in him, repaid us with the basest ingratitude.

"For about nine months previous to his resigning, by lack of dignity in our meetings, by neglect of duty in many instances, and by usurpation of other officers' duties in other cases, he succeeded in effectually prostrating the cause amongst us.

"We have evidence—indubitable evidence—of his discouraging applicants for membership, by assurances that our UNION had 'played out'; that it was 'a damned humbug,' and like ungentlemanly expressions. Even after the reception of the entire initiation fee, he has refused or neglected to present the applicant's name to the District, or to refund the money.

"Although repeatedly informed as to who were in arrears, with the exception of but few cases he seemed to disregard it. He assumed the duties of the District Treasurer and the Treasurer of the Union, by collecting District and National dues, and by *loaning* twelve dollars to one member, and in his settlement accounted for it as a 'sick allowance' to the member, who had not been identified with the UNION one month.

"We threw an influence around him that compelled his resignation. He then delayed rendering his accounts until compelled to do so. He returned a mass of crudities, giving bills of expenditure without the President's signature, as cash, and when objection was made to them in that condition, he damned our entire Association. This has caused vast dissatisfaction, and, for a time, prostrated the cause amongst us.

"The members of our District are as loyal and steadfast as any members of the Union, and are determined to redeem their injured character, and regain their lost position; and they look to you for help and encouragement, by taking prompt and decisive action in this case, rendering it a conspicuous warning to those who prefer personal aggrandizement to the blessed cause we have so near our hearts."

Mr. Stover.—I move that the communication just read be accepted and placed on file.

This motion was subsequently withdrawn.

Mr. Young.—I think it would be well to refer to a committee to take action upon it.

Mr. Black.—I move that it be referred to the Executive Committee, with power to act.

Adopted *nem. con.*

The Committee on the Revision of the Constitution and By-Laws announced themselves ready to report, and the subject was then resumed.

Article II., Clause 10, Section 8, omitted in reading of report yesterday, was read and adopted.

Article VII. was then read by the Secretary.

Mr. Black.—I take objection to Clause 2. A man, by neglecting to pay his dues to the National and Local organizations, forfeits all rights and benefits in this organization. We punish that member to the utmost of our ability by expelling him from our organization. How are you going to ask him to pay up all his back dues if he desires to join the Association again, unless he would have been entitled to all the benefits in the meantime?

Mr. Churchill.—It will be charged upon him as a fine and punishment for neglect of duty.

Mr. Yeakle.—If a member allows himself to be expelled, the Union has a right to impose such penalties upon him as they see fit. I do not think it is proper to put one of this class on a footing with one who regularly pays his dues.

Mr. Bliss.—I move that the clause be adopted.

Mr. Black.—I move that we strike out all after the word "together."

Mr. Bliss.—The gentleman is out of order.

Mr. Young.—I rise to a point of order. We cannot act upon this clause. The gentleman's motion is entirely out of order. We still have to act upon the clauses which have previously been read.

Mr. Bliss.—I move the adoption of the first clause. The first clause was read and adopted.

Mr. Bliss.—I move the adoption of Clause 2.

Mr. Black.—I move to strike out all after the word "expulsion."

Mr. Maynard.—If a man pays his dues he can receive

all benefits, if he is entitled to them. If he does not pay his dues, he is not entitled to anything. If he comes back to the Union, he can then receive them. I do not think the Union should receive him and be the loser. If a man comes back he generally does so from mercenary motives. He should have honor enough to pay up promptly.

MR. BLACK.—I offer the following substitute for Clause 2:

"Any person expelled from the Union by failure to pay his National and Local dues for a period of nine months, may be readmitted on the payment of all dues accruing up to the time of said expulsion."

Considerable discussion ensued, and the question being called for, Mr. Young moved that the vote be taken by yeas and nays, and recorded, which motion was adopted, and the Secretary proceeded to call the roll.

Nays.—Messrs. Collamore and Thode.

Yea.—Messrs. Scully, Steinhoff, Thompson.

Mr. Pannell's name being next on the list, was called by the Secretary, when considerable discussion ensued in reference to Mr. Scully voting for him by proxy.

MR. YOUNG.—I move that the New-York delegation be allowed to cast four votes in this Convention.

MR. BLISS.—I object to that—New-York is over \$600 in arrears.

THE PRESIDENT.—The motion not being seconded there is no question before the house.

The motion of Mr. Young was seconded, but afterwards withdrawn.

MR. COLLAMORE.—To decide this matter, Mr. President, I move "that no member be allowed to vote as proxy for a delegate who has attended any meeting of this Convention."

PRESIDENT.—The President has already decided that a motion was out of order unless by general consent of the Convention.

MR. WHEELER.—The question is, shall we accept Mr. Pannell's proxy?

MR. STOVER to MR. YOUNG.—Do you consider the action of the Committee of the Whole binding upon this Convention in any manner?

MR. YOUNG.—I do not think so; certainly not.

PRESIDENT.—This debate is entirely out of order. We have ordered a vote on this question, and unless general consent is given, the matter cannot be brought before the Convention.

The Secretary then proceeded with the roll call, as follows:

Nays—Messrs. Bliss, Maynard, Wheeler, Stover, McDill, Buckwell, Ellison, Biggert, Whipple, Zeublin (Indianapolis), Koerner, Kelty, Yeakle, McKenzie, Pamplin, Dealy, Churchill, Reese, Black, Zeublin (Greencastle)—22.

Yea—Messrs. Pickering and Flack—5.

Absent—Messrs. Pannell, Kiefer, and Chandler.

The substitute being lost, the question then recurred upon the clause as reported by the committee, which was adopted.

The remaining clauses of Article VII. were then read and adopted by clauses, and the whole article adopted as a whole.

Article VIII. was then read.

MR. BLISS.—I move that this article be adopted.

MR. BUCKWELL.—I hope that this article will be amended in some manner. I do not think it is altogether right in the way it is.

MR. CHURCHILL.—This matter was fully discussed in committee. It says it has to be approved by the District Director, and when it is so approved, they may advance the money immediately. The President shall order its immediate payment when properly approved.

MR. WHEELER.—I do not believe in scattering the funds of the Union amongst the different Districts. If we did so we should have very little in the hands of the Union.

MR. HAMMOND.—I should like to make a few inquiries. I had a difficulty some time ago upon an interpretation of this article. An account of a sick member was sent to me with the statement that it was my duty to order the Treasurer to honor the draft for the benefit of the individual. I took issue with the Director, and requested that he should make a statement of how long the member was unwell, and how much money he wished forwarded. He

got very much offended, and said that according to the Constitution the manner was to direct the Treasurer to honor any drafts that he might make for that individual. If this is a true interpretation of the article, I think it is a farce. I should like to see a more definite expression in regard to this article. I decided to decline giving the Treasurer any order for money in that way as long as I remained in office.

MR. BLISS.—I move to amend the article by inserting after "shall," the words "if he approves."

MR. BLACK.—I do not think the District Director can claim more than five dollars per week.

MR. WHEELER.—I amend that by saying "he shall if he entertains the application, order its immediate payment."

MR. BLISS. withdrew his amendment and that of Mr. Wheeler was adopted, as was the entire article.

Article IX., Section 1, was read.

It was moved that the section be acted on by clauses. Clause first was adopted.

MR. BLISS.—I move to have the word "must" in Clause 2, changed for the word "should."

MR. BLACK.—I will support this amendment. It is right, proper, and just, and I think no possible objection can be made to it. I think a member should receive assistance from any part of the country. It is so in all other organizations, and it should be so in this. I therefore hope the amendment will prevail.

The amendment was lost. Yea, 9; nays, 18. And the clause was then adopted as read.

MR. MAYNARD.—I move to amend Clause 3d, by inserting after the word "and," the word "any," and also to strike out, after the word "disbanded," the word "if." Which was adopted, as was the clause as amended; and Article IX. was then adopted as a whole. Articles X., XI., XII., XIII., and XIV. were then adopted without amendment or debate, which concluded the Constitution.

MR. BUCKWELL.—I move that the adoption of the Constitution as a whole be made the special order for this afternoon, at three o'clock.

MR. MAYNARD.—I move to amend by substituting half-past seven o'clock instead of three o'clock.

The substitute of Mr. Maynard was adopted, and the matter postponed until the hour named.

MR. YOUNG, Vice-President.—The hour of twelve o'clock having arrived, the special order of the day in relation to the Editor of THE TELEGRAPHER will be considered.

MR. BUCKWELL.—I move that we postpone the special order until three o'clock.

The motion was agreed to, *nem. con.*

The By-Laws were then considered.

Articles I. and II. were adopted without discussion. This being as far as the committee had proceeded with their work, the whole matter was laid over until half-past seven o'clock, P. M.

MR. HAMMOND.—I move that the Chairman of the Committee on Resolutions, if he is ready to report, be allowed to do so.

The motion was agreed to, and the Chairman reported the action of the committee in writing. It is as follows:

"BALTIMORE, Sept. 18, 1866.

"TO THE PRESIDENT AND MEMBERS OF THE CONVENTION:

"Your Committee, appointed to draft a preamble and resolutions declaratory of the principles and objects of THE NATIONAL TELEGRAPHIC UNION, beg leave to submit the following:

"Whereas, The National Telegraphic Union was originally intended, in the words of its founders, 'to promote the general welfare of the telegraphic fraternity; to harmonize and make common our individual interests; and for purposes of mutual protection and support,' and

"Whereas, Its objects were at the same time declared to be 'to enhance, in every way consistent with right and justice, the material interests of all its members; to be their safeguard and protection in prosperity or adversity; and to elevate the profession by every means in its power,' and

"Whereas, We believe these objects can only be accomplished by the pursuance of such a policy on the part of the Telegraph Companies of the United States as shall present a better prospect of professional advancement to operators, and hold out to them greater incentives to ex-

erition; and on the part of operators, by the constant exercise of the most intelligent and earnest efforts in the performance of their duties, and an unceasing endeavor to prove themselves true men; and

"Whereas, It has been intimated that it is in contemplation to reduce the present rate of compensation, be it therefore

"Resolved, That it is the sense of this Convention, that the present rate of compensation is not excessive; that for the present, at least, no change should be made; that many of us having made engagements based on the present rates of compensation, will find ourselves seriously embarrassed should our resources be materially reduced.

"Respectfully submitted."

(Signed by full Committee.)

Your committee also recommend the adoption by the Convention of the following resolutions:

"Resolved, That the new Executive Committee be, and they are hereby authorized and directed to issue an address, containing our declaration of principles and the resolutions adopted by this Convention, to the operators of the United States, calling upon them to join us in carrying out the objects therein set forth.

"Resolved, That our brother operators of Canada and the Provinces be cordially invited to organize Districts in their midst, to act either independently, or as auxiliaries to this body."

(Signed by the Committee.)

The report of the committee was received and accepted.

MR. UPHAM.—I have a few remarks to make in regard to this report. Your committee were well aware, when they were appointed, that the duty to which they were assigned would be a most delicate and important one. It involved a great amount of discussion amongst ourselves and no small degree of labor in the way of weighing and adjusting all the delicate points. Many, and in fact all of the committee, felt that this report would hardly be satisfactory to the Convention or to the members of the Union at large; but we found it almost impossible here, and now, with the very limited time at our disposal, to draw up such a series of resolutions as we thought would cover all the points which should be made, in what might be called the platform of the Union. We think that an address should be drawn up which shall embody the ideas, feelings, and objects which we discussed in that committee, a memorandum of which the Chairman has in his possession. We feel that in that form the thing can be worked out properly.

The resolutions reported by the committee were then before the Convention for final action.

MR. MAYNARD.—There is one word I do not like in these resolutions. That word is, "intimated." I think this series of resolutions is uncalled for if we have received nothing but a mere intimation.

MR. STOVER.—I hope these resolutions will draw out a little discussion. It occurs to me in the reading of that report that instead of the words "no change of salaries," it should be "no reduction of salaries."

This amendment was incorporated in the resolution.

MR. MAYNARD.—I desire to amend that in the place of the word "intimated," that the word "asserted" be used. The amendment was rejected, and the resolutions, as reported by the committee, were adopted.

On motion, the Convention then went into secret session, Mr. McDill acting as sergeant-at-arms.

At two o'clock P. M. further consideration of subjects under discussion was postponed until after completion of all other business.

On motion of **MR. STOVER** it was then

"Voted, That the doings of our Annual Conventions shall, if necessary, be published in a supplement to THE TELEGRAPHER, and shall be furnished to the Districts and members at cost of publication."

Also, "Voted, That whenever the current monthly or quarterly expenditures for the publication of THE TELEGRAPHER shall exceed its current receipts, the President shall order the payment from the treasury, to the Editor, of such sums as may be necessary to meet the deficit."

"Voted, That if at any time after our adjournment and before the assembling of the next Convention, the Executive Committee should find it necessary to remove the Editor of THE TELEGRAPHER, as provided by the amend-

ment to the Review Bill passed by the second Annual Convention, they are hereby empowered to fix the salary of his successor at such a sum as they may deem advisable."

Also, "Voted, That from the time of our adjournment, up to the assembling of the next Convention, the Executive Committee are hereby empowered to exercise legislative as well as executive powers, and may adopt and carry out such measures as they may deem advisable for the good of the UNION."

Mr. Stover also offered the following:

"Resolved, That while we would urge and encourage, on the part of operators, a cheerful compliance with all reasonable and legitimate demands of their employers, and a faithful performance of duties, yet it is with the deepest regret we have witnessed the illiberality which has characterized certain Division Superintendents in refusing leave of absence to delegates elect to this Convention."

"We believe such a course on the part of superintendents is unjust and impolitic, and eminently calculated to destroy the respect and good-will which should exist between the employers and employés."

Which was adopted *nem. con.*, and Convention adjourned in course.

Afternoon Session.

FRIDAY, September 14, 1866.

VICE-PRESIDENT YOUNG called the Convention to order at 8:10 P. M.

Reading the minutes of the morning and yesterday's session was dispensed with by general consent.

The report of the Committee of the Whole on THE TELEGRAPHER was then before the Convention.

MR. STOVER.—I move that the report of the Committee of the Whole on the subject of THE TELEGRAPHER be placed on the table.

The vote being taken in the usual way on this subject, a division was called by Mr. Stover, and the vote stood, yeas 10, nays 8.

So the matter was laid on the table.

MR. BLACK.—Since the special order has been laid on the table I think a motion is in order. I therefore move for a reconsideration of the vote by which the Treasurer was allowed to call on the Union if the proceeds of THE TELEGRAPHER are not sufficient to pay its expenses. My reasons are from the fact that I want THE TELEGRAPHER to be self-supporting or not supporting at all. I believe the resolution this morning was rushed through in a hurry. I therefore call for a reconsideration.

MR. STOVER.—I have no doubt the gentleman is honest in his convictions as expressed. I, however, believe he is laboring under a serious mistake. His statement in regard to somebody being willing to take it at fifteen hundred dollars, and another willing to take it at eight hundred dollars, seems very strange. I do not believe it possible for any man to take the paper and make it pay over and above all expenditures at eight hundred dollars. When the gentleman talks about it being a fraud I think he misrepresents both sides. There is no fraud in the matter at all.

MR. BLACK.—The gentleman has given another good reason, however. I am opposed to providing sinecures for any man. It was distinctly stated that there was no doubt whatever but what if we employed a man and gave him a salary to devote the best portion of his time to it, but what the circulation of the paper would be increased. There was then no question whatever but what the paper would be self-sustaining, according to the statements made. I talked against it last night, and showed figures which proved that it would not be self-sustaining.

MR. SCULLY.—I doubt if the gentleman can make good his assertion from any facts he can bring forth. I think it impolitic to make such an assertion as that. I stated that that paper, if properly conducted, would be self-sustaining, and in all human probability be a source of profit to the organization. I would say that I have tried to procure the feelings of some of the members in relation to this matter, and I find they are all in favor of some man taking it and using his influence to increase the value of this paper. I merely say that if the receipts should fall below what would be required to pay him, that the deficit be made certain for him by this UNION. I think it very likely

that if the Convention pledged itself to pay whatever deficiency there may be, it would be an incentive to make all the members subscribe to the paper.

MR. BLACK's motion to reconsider was then put and lost.

MR. BLISS.—The Chairman of the Auditing Committee is absent. I have the report of that committee and will present it. The committee have made a report on THE TELEGRAPHER and on the Treasurer's report also.

The report was then read by the Secretary as follows:

"BALTIMORE, Sept. 14, 1866.

"To the President and Delegates of the Third Annual Convention of THE NATIONAL TELEGRAPHIC UNION:

"Your committee, to whom was referred the accounts of the Treasurer and the Editor of THE TELEGRAPHER, beg leave to submit the following report:

"An examination of the books of the Treasurer has satisfied your committee that the report of that officer, as submitted to the Convention, is correct.

"An examination of the accounts of the Editor of THE TELEGRAPHER lead your committee to believe that the report of that gentleman was too hastily prepared, and is calculated to convey a wrong impression as to the financial condition of the paper.

"Your committee believe that the pressure of other duties upon Mr. Smith, during the short time that has elapsed since the close of the fiscal year, has been such as to render it impossible for him to prepare a correct statement of receipts and expenditures for the year just past in season to present the same to the Convention at its opening session. Furthermore, by a reference to the printed reports of the Treasurer and the Editor of THE TELEGRAPHER for the last year, a slight discrepancy is found between the amount stated to have been remitted by the Editor to the Treasurer, as the profits of publication of the paper, and the amount stated by the Treasurer to have been received from the same source. In the hurry of preparing his report the Editor has adopted certain figures as the amount of cash on hand belonging to THE TELEGRAPHER at the beginning of the last fiscal year, which figures he now considers incorrect. An opportunity should be given the Editor for a correction of his report in this particular. We believe that the paper, so far from being conducted at a pecuniary loss, has at least paid expenses during the past year.

"We therefore suggest that the report of the Editor of THE TELEGRAPHER be returned to him with permission to revise and present the same to the Auditing Committee as soon as possible after the adjournment of this Convention, and previous to the publication of its proceedings, and that power be granted to this committee to continue its sitting and make a final report after the adjournment of the Convention.

"Respectfully submitted,

"E. B. CHANDLER,

"A. H. BLISS,

"Auditing Committee."

MR. STOVER.—I move that the suggestions contained in the report be adopted.

Agreed to.

MR. BLISS.—I would like to make a verbal report from the committee to procure commutation tickets. I would say that we have thus far procured commutation tickets over all the roads except between Philadelphia and New-York. Part of them were obtained at half fare, and the remainder at two-thirds fare.

The report was accepted.

MR. SCULLY.—I move that the consideration of the report of the Committee of the Whole on THE TELEGRAPHER be taken up.

Agreed to.

MR. BLISS.—I move that no debate be allowed upon this subject.

MR. SCULLY.—I think there should be some debate allowed, and the Committee on the Constitution and By-Laws should be present on account of the importance of this matter. All the members possible should be here. I propose, therefore, to send for that committee.

MR. KELTY.—I do not think there is any use in debating this question. We have all made up our minds in regard to it.

MR. STOVER.—I do not believe we can, of right, have this motion entertained to stop all debate on this question. I think a motion to limit the debate is in order. The President ought to limit the members to one speech each in regard to the matter.

MR. BLISS.—I am willing to withdraw my motion, and now move that no member speak more than once, and only for five minutes.

This motion was adopted.

MR. STOVER.—I move that hereafter no votes be taken by proxies for members who have acted in this Convention and who have withdrawn.

Adopted.

MR. YOUNG, Vice-President.—The subject now before the Convention is the report of the Committee of the Whole on THE TELEGRAPHER.

MR. COLLAMORE.—I move that the report of the Committee of the Whole be accepted.

The report was accepted.

MR. COLLAMORE.—I now move that the report of the Committee of the Whole be adopted.

MR. BLACK, Chairman of the Committee of the Whole, then set forth the action of the committee. He said:

"It was decided in the Committee of the Whole, in session yesterday afternoon, that the future salary of the Editor of THE TELEGRAPHER should be eight hundred dollars. That is the decision at which the committee arrived, after which they arose."

The vote on the report of the committee was taken by yeas and nays, as follows:

Yeas.	Nays.
COLLAMORE,	THOMPSON,
THODE,	SCULLY,
BLISS,	STEINHOFF,
WHEELER,	MAYNARD,
STOVER,	McDILL,
WHIPPLE,	BUCKWELL,
ZUBLIN (Indianapolis),	ELLISON,
KERNER,	BIGGERT,
KELTY,	YEAKLE,
DEALY,	MCKENZIE,
CHURCHILL,	PICKERING,
REESE,	PAMPLIN,
CHANDLER,	FLACK,
BLACK,	
ZUBLIN (Greencastle),	

Yea, 15. Nays, 18.

And the report was declared adopted.

MR. MAYNARD.—Mr. President, I would offer the following resolution:

"Resolved, That the Editor of THE TELEGRAPHER be required to perform the duties of Supply Agent without additional salary."

Adopted.

MR. PAMPLIN.—I beg leave to offer the following resolution, Mr. President:

"Resolved, That in the opinion of this Convention it is incompatible with the best interests of the NATIONAL TELEGRAPHIC UNION to allow our organ (THE TELEGRAPHER) to be edited by any man who is employed by a telegraph company in any capacity."

A motion was made by Mr. Black to lay the resolution on the table. A vote being taken it resulted as follows:

Yeas.	Nays.
COLLAMORE,	SCULLY,
THODE,	STEINHOFF,
BLISS,	THOMPSON,
WHEELER,	McDILL,
STOVER,	BUCKWELL,
WHIPPLE,	ELLISON,
ZUBLIN (Indianapolis),	BIGGERT,
KERNER,	YEAKLE,
KELTY,	MCKENZIE,
DEALY,	PICKERING,
CHURCHILL,	PAMPLIN,
REESE,	
FLACK,	
CHANDLER,	
BLACK,	
ZUBLIN (Greencastle),	
MAYNARD,	

Yea, 17. Nays, 11.

And the resolution was tabled.

MR. COLLAMORE.—I move that the Committee on the Constitution and By-Laws proceed with their report.

Agreed to.

The committee then commenced with Article III., of the By-Laws, they having finished their labors down to this point.

Articles III., IV., V., VI., and VII. of By-Laws were adopted, as were, also, the Order of Business, without debate.

Mr. Churchill then made a few suggestions in writing from the Committee on the Constitution and By-Laws, which were adopted, as follows:

"The committee, in closing their labors, would earnestly recommend renewed efforts to establish the UNION on a firm and lasting basis. They would also recommend that Districts take into consideration the subject of introducing into their meetings—special and regular—questions for discussion, embracing such matter pertaining to the moral, social, and scientific advancement of telegraphers as may be from time to time suggested as one means of increasing the interest of our District meetings.

(Signed)

"F. G. CHURCHILL, Chairman,
"W. H. WHEELER, Sec.,
"E. B. McDILL, Ass't Sec.,
"J. B. YEAKLE,
"K. MCKENZIE,
"W. L. BIGGERT,
"G. C. MAYNARD,

"Committee on Revision of Constitution and By-Laws."

MR. KERNER.—I move that the Constitution and By-Laws be adopted and placed in the hands of the Committee for Publication.

Agreed to.

MR. MAYNARD.—I move that the President of the Union act as chairman of the committee to prepare the Constitution and By-Laws for publication.

Agreed to, *nem. con.*

MR. WHEELER.—I move that we proceed to an election of officers.

Agreed to.

MR. STOVER.—I move that the election of officers be by ballot, and that nominations be made from the floor, and be voted for singly by formal ballot.

Agreed to.

Mr. Black took the chair.

The chair appointed two tellers to conduct the election—Mr. Buckwell, of Philadelphia, and Mr. McKenzie, of St. Louis.

The following nominations were made for President: Messrs. Young, Upham, Stover, and Hammond.

The two latter gentlemen withdrew, and the nominations closed.

The following is the result of the first ballot:

Young, 14; Upham, 14; Stover, 1. There being no choice.

Mr. Stover's name was dropped and a second ballot was then taken, as follows:

Young, 18; Upham, 16.

MR. YOUNG.—I move that the election be made unanimous and that Mr. Upham address us.

Agreed to.

MR. UPHAM.—Mr. Chairman and gentlemen of the Convention. (Applause.) My emotion on this occasion overpowers me. For three years I have endeavored to perform to the best of my ability such duties as you saw fit to assign to me. In 1863, as may be seen by reference to this roll which I hold in my hand, I then pledged my sacred honor to stand by and support that document. We then pledged ourselves, all of us, to perform faithfully every duty which the majority saw fit to assign us. That pledge I have endeavored faithfully to keep, and to-day, to stand here as President elect of this organization, feeling as I now do that my efforts have been appreciated, and that I am surrounded by men who are capable of appreciating them, is almost more than I can bear. To feel that I have grown so in the confidence of my brother operators, starting without friends, as our worthy President remarked last year in his address, with no one but myself to depend upon, I have been able, since the age of sixteen, *always to earn my own living*. I have been able to advance slowly

though surely in my profession. To know, I say, that I have risen to this point in your esteem, is most grateful to my feelings. I will not attempt to make you a set speech, nor will I pledge myself to any particular principles, nor to any prescribed course of action; but in accepting this election at your hands, I think that I may safely assert that you will find me hereafter, as you have found me in the past, devoted to *your* interests, which are *my* interests, to the interests of no one section, but to the *best interests* and the *lasting welfare* of the telegraph operators of the UNION.

The following nominations were then made for Vice-President:

Messrs. Churchill, Chicago; McKenzie, St. Louis; and Priest, Detroit.

McKenzie asked and was granted leave to withdraw his name.

The vote being taken it resulted as follows:

Churchill, 22; Priest, 6; McKenzie, 1.

On motion of Mr. McDill the vote was declared unanimous.

MR. CHURCHILL spoke as follows: "Mr. President and gentlemen; I find myself placed in a position at once embarrassing and unexpected, although very gratifying to my pride. However, I did not join this Union to be a *talking* member. I trust that whatever I may do may be acceptable to this Union. So long as I work under the direction of our worthy President I shall feel content and be satisfied with myself. I cannot make a speech, but what I cannot say I shall *do*, and do it with my whole heart."

Nominations for Treasurer were then in order. Mr. Whipple, of Albany, was nominated, and the rules were suspended in his case—of voting by ballot—and he was declared Treasurer of the Union by acclamation.

Upon the result of the election being known, he spoke as follows:

MR. WHIPPLE.—Mr. President and gentlemen: I thank you for the honor you have so kindly conferred on me. I did not expect it, as there are many of the members present who could act in the capacity of Treasurer much better than myself. Still I will do as well as I can to please you all. I thank you from the bottom of my heart.

The following nominations were then made for Recording Secretary:

Messrs. J. J. G. Riley, J. J. Flanagan, and T. W. Priest. The vote being taken by ballot, the result was as follows:

J. J. G. Riley, 19; T. W. Priest, 6; J. J. Flanagan, 4.

The election being made unanimous, Mr. Riley, who was present, addressed the Convention as follows:

"Mr. President and gentlemen: I must confess that the action of this Convention has taken me rather by surprise, and is very gratifying, I assure you. I think myself that I am very poorly capacitated to fill the position, but I will endeavor to do the duties devolving upon me as far as I am capable, and thank you very much for your kindness."

Nominations for Corresponding Secretary being in order, Mr. Stover, of Boston, was nominated, but declined, and the acceptance of his declination being put to vote it was accepted by a vote of fifteen to thirteen.

Messrs. Maynard, of Washington, and Wheeler, of Boston, were then nominated for Corresponding Secretary, and the vote being taken, the result was as follows:

Maynard, 17; Wheeler, 12.

The election being made unanimous, Mr. Maynard spoke as follows:

MR. MAYNARD.—Mr. Chairman and gentlemen of the Convention: You have my most sincere thanks for the honor conferred. At this time I have no promises to make. I hope I shall perform the duties of the office as I should.

MR. HAMMOND moved that the Review Bill be so amended that the Editor of THE TELEGRAPHER be appointed by the Executive Committee instead of elected by the Convention.

MR. WHEELER.—I move that we now proceed to the election of Editor of THE TELEGRAPHER.

Which was agreed to, and nominations for that position were declared in order. Mr. Collamore nominated Mr. Stover, of Boston; Mr. Young nominated Mr. Smith, of New-York. Mr. Smith declined the nomination. Not granted. Messrs. Stover and Smith declared nominees, and Convention proceeded to ballot. Mr. Stover's name

being called for vote, he said: "Mr. Chairman, I would not be elected to that position, were it worth ten thousand dollars, by my own vote. As this ballot will probably be a very close one, I ask to be excused from voting." Granted. The tellers reported the result of the ballot as follows: Smith, 15; Stover, 13; and on motion of Mr. Stover the election of Mr. Smith was declared unanimous.

MR. SMITH addressed the Convention as follows:

"Mr. Chairman: Under the circumstances by which I have been elected, I wish to say to this Convention that I do accept, and in future, as I have done heretofore, I shall use my best endeavors to serve the UNION, telegraphers in general, and also THE TELEGRAPHER. I have worked steadily for three nights, and labored hard during the day, and I feel very much exhausted, and therefore will not say much. But, gentlemen of the Convention, I thank you for this, another mark of your confidence, and hope I shall always be able to merit it."

MR. YOUNG.—I move to adjourn until half-past seven o'clock.

This motion was subsequently withdrawn.

MR. CHURCHILL.—I move that the Convention go into an election for the next place of meeting of the Convention. Agreed to.

It was moved that the vote be by ballot.

Also agreed to.

The following is the vote cast.

St. Louis, 15; Albany, 8; Pittsburg, 8; Cincinnati, 1. The city of St. Louis was consequently selected as the next place of meeting of the Convention.

MR. COLLAMORE.—I want to make a personal explanation, and say that I believe that the election of Mr. Smith was made unanimous; but personally I wish to protest against the action of the Convention in this regard.

MR. BLACK (Chairman).—The gentleman's protest is too late, and out of place, and is a gratuitous insult to this Convention.

MR. HAMMOND.—I move that we adjourn until half-past seven o'clock P. M.

Agreed to, and the Convention adjourned at six o'clock. Adjourned.

Evening Session.

FRIDAY, Sept. 14, 1866.

VICE-PRESIDENT YOUNG called the meeting to order at 7:45 P. M.

MR. PRESIDENT.—The first thing in order is the reading of the proceedings of the afternoon session. The Secretary will please read the proceedings.

MR. BLACK.—I move that the reading of the proceedings be dispensed with.

Agreed to.

MR. CHURCHILL.—Might I be allowed to make a suggestion, so that it can be acted upon? Our withdrawal cards are now written. I think they should be printed in a neat form. If it is in order I would make that as a motion. I think the President should authorize the supply department to get blank withdrawal cards in such form as he may deem advisable.

The motion was agreed to.

MR. WHEELER.—In order that the Editor of THE TELEGRAPHER shall receive aid from each District in editing his paper, and that each District may have some one who shall represent the feelings of their District upon such questions as may arise, I offer the following resolutions:

"Resolved, That each and every District be and hereby are urged to elect one or more of their number to act as correspondents of THE TELEGRAPHER; and be it further

"Resolved, That any and all articles written for THE TELEGRAPHER by correspondents thus elected shall be published therein."

The resolutions were adopted.

MR. BUCKWELL offered the following resolution:

"Resolved, That we recognize in the action of Mr. L. H. Smith, in abolishing Sunday work on the lines over which he has control, a new evidence of his determination to carry out the well-known wishes of the UNION, and that he is deserving of our grateful acknowledgment for the same."

Adopted, *nem. con.*

MR. CHURCHILL.—I move that two thousand copies of the Constitution be ordered to be printed, and that each District pay its proportion of the cost.

Mr. Churchill withdrew the latter part of his motion, and the former was adopted.

There being no other business in order, in accordance with previous vote the Convention resumed its secret session.

Upon the reassembling of the Convention in open session, Mr. BLACK moved that the records of to-day's proceedings be adopted without reading, which was agreed to.

MR. BLACK.—If the Convention will pardon me, I think we have omitted one little courtesy and duty, which is "that the thanks of the Convention be and they are hereby tendered to the retiring officers of the National Telegraphic Union for the faithful and efficient manner in which they have performed their duties during the past year."

The motion of Mr. Black was adopted.

MR. CHURCHILL.—I would move a vote of thanks be extended to the railroad companies for the courtesy they have shown us in giving us half-fare tickets, and that the Corresponding Secretary be requested to notify the railroads in question.

Adopted.

MR. KELTY.—I move that the thanks of the Convention be extended to Mr. Coleman for his kindness to us while in session here.

Adopted, with cheers for Coleman.

MR. CHURCHILL.—I move that we adjourn *sine die*.

The Convention then adjourned *sine die* at 9:45 P. M., with cheers for ex-President Hammond and the NATIONAL TELEGRAPHIC UNION.

The members then proceeded to the dining-hall of the Eutaw House, where a banquet had been prepared for them by the Baltimore District. The affair terminated at 12:45 A. M.

Additional Report of the Auditing Committee.

Your committee to whom was referred the corrected report of the Editor of THE TELEGRAPHER, beg leave to submit the following brief report:

From the data furnished, it appears that thus far the paper has not only been self-sustaining, but has a moderate surplus wherewith to begin the third year of its publication. There is no other Telegraphic Journal, as your committee believe, that has lived to see the end of its second year. We are also of the opinion that it is at present the only purely Telegraphic Journal in existence. These facts should stimulate the members of the National Telegraphic Union, whose organ it is, and the telegraphic community generally, to a more liberal and earnest support of a paper so well worthy their endorsement and patronage.

Your committee respectfully recommend the acceptance of the Editor's corrected report.

E. B. CHANDLER, Chairman,
(Signed) A. H. BLISS,
GEO. C. MAYNARD.

Corrected Report of the Editor of "The Telegrapher."

Cash in hand from last report.....	\$277 97
" for Subscriptions and Advertisements.....	2,535 44
" for Diagrams sold.....	1 25
" for 12 bound copies Vol. I.....	53 04
" from Treasurer to pay expenses in excess of receipts of No. 8.....	55 28
Total.....	\$2,923 99

Expenses.

By pd. for Printing.....	\$1,499 17
" Paper.....	566 00
" Wrappers.....	92 81
" Diagrams.....	15 00
" Postage, Subscriptions, Errand - boy, Clerk-hire, and other incidentals.....	246 50
" Cash remitted Treasurer for Receipts of Nos. 9 to 13 inclusive.....	88 23
" Cash in hand, to balance.....	490 78
Total.....	\$2,923 99

I certify the above to be correct to the best of my knowledge and belief.
L. H. SMITH, Editor.

It is but justice for us to say that Messrs. L. G. Tillotson & Co., 26 Dey street, this city, are the *sole agents* of the Brooks Patent Insulator, testimonials as to the merits of which we are now publishing.

The Telegrapher:

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THE UNION is an association of telegraph operators, for their own mutual benefit and support, and THE TELEGRAPHER is published to disseminate information among its members, as well as general telegraphic news.

THE TELEGRAPHER is published in New-York, on the first and fifteenth of every month, and besides matters of associate interest, is devoted to the interests of telegraphers all over the world, and will contain telegraphic information from all parts of the globe.

It is not confined to any one policy, but will seek to correct abuses, give honor and praise wherever and whenever due, and endeavor to elevate the standard of operators, both morally and scientifically.

It will not support any one person or corporation, but will aim to treat all alike, censuring either or both, when merited, and praising alike when praise is won.

Its columns will not be open to any one for personal abuse, nor for personal profit at the expense of others, nor will it contain anything that the most fastidious would not read.

THE TELEGRAPHER will contain Original Articles upon any and all subjects of interest to the fraternity and profession; Extracts from Works on Telegraphy, Electricity, and Magnetism; Statistics; Improvements in Telegraphy, Telegraph Instruments, and Materials; Correspondence; Poetry upon Telegraphic Subjects; Telegraphic Literature; Incidents and Items of Personal Interest; Promotions; Removals; Resignations; Marriages and Deaths of Telegraphers; Newspaper Extracts of Telegraphic Items from any and every city, town, State, or country.

We invite the co-operation of every one who is directly or remotely connected or interested in Telegraphy, in this undertaking to establish and maintain a first-class telegraphic newspaper, and for any items of news or personal telegraphic interest, articles or newspaper extracts upon any of the above-mentioned subjects. We will cheerfully pay a reasonable sum for any trouble and expense gone to in behalf of this paper, and for any original articles which we may use.

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THE TELEGRAPHER is a medium quarto of twelve pages (the last four of which will be devoted to Advertisements of Telegraphic Materials, or any other respectable business), with clear type and on good paper. It will aim to be a first-class telegraphic newspaper, and not to be surpassed in the vigor and spirit of its editorials, nor in the variety and freshness of its reading matter generally. On all subjects which it discusses, it will aim to be correct, independent, clear, conscientious, and fearless.

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All communications to, or articles for insertion in, THE TELEGRAPHER, must be addressed to the Editor, care P. O. Box 6077, New-York.

No notice will be taken of anonymous communications: the name and address of the writer must always accompany each article or communication.

Correspondents sending articles for insertion must write briefly, and on but one side of each half sheet of paper.

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VOLUME III.

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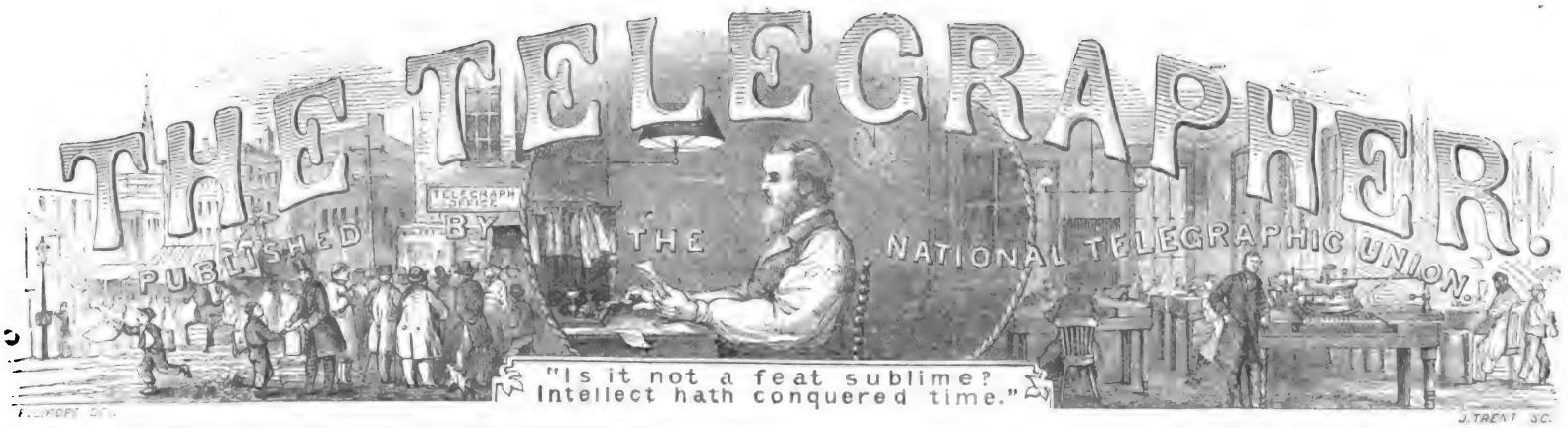
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GENERAL OFFICERS

OF THE

NATIONAL TELEGRAPHIC UNION.

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W. H. YOUNG, VICE-PRES'T, Box 164 Washington, D. C.
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LETTER FROM THE POSTMASTER-GENERAL.

(Continued.)

To give an idea of the extent of present facilities in the principal cities, the following statement, showing the number of offices now open, is submitted:

New-York.....	74 offices.
Philadelphia.....	35 "
Baltimore.....	19 "
Washington.....	16 "
Boston.....	24 "
Chicago.....	22 "
Cincinnati.....	21 "

In opening this multitude of offices, and in following up with vigor all the demands of this auxiliary character made upon them, the telegraph companies have been led into a large absorption of their earnings, upon the conviction that what was clearly needed for public convenience it was wisdom at once to provide. Whatever other charges may be brought against the companies, this fact must ever remain unquestioned, that the wires were been led wherever they would add to the public convenience. And it detracts not a whit from this claim to enterprise and prompt submission to the public demands, that in serving commercial and social interests liberally and trustfully, these companies have felt that they were laying the foundations of their own success.

8. How many operators and employés of all sorts would be needed for the main offices in those cities?

Presuming that the force now employed by the different companies represents the number necessary to do the present business, the following table is given:

Whole number of persons employed by all telegraph companies in the following cities:

Cities.	Managers.	Operators.	Clerks.	Mes'ngers.	Total.
New-York,	5	202	109	168	375
Philadelphia,	4	78	43	86	211
Baltimore,	4	42	20	48	114
Washington,	4	43	30	38	115
Boston,	4	58	34	60	156
Chicago,	2	36	12	36	86
Cincinnati,	3	43	10	37	93

Besides battery-men and repairers, and the force employed in the treasurer, auditor, and engineer's offices.

The force of a single main office, having six wires, in a city like New-York, would be, for day service, 1 manager, 3 receiving clerks, 8 operators, or 12 if service is continuous, 2 copying clerks, 1 office boy, 1 delivery

manager, 3 book-keepers, 16 messengers, 1 battery-man, 1 repairer.

This supposes a terminal office in a large city. The messenger force depends on the range of delivery. The rule being that no boy shall be allowed to take for delivery more than one message, unless for distant delivery, or for the same locality, and shall deliver first that which came first, the number of messengers must depend on the average distance traversed.

When partial night service is required, the force is enlarged one-third.

When the office, ceasing to be terminal, radiates by added wires, or a continuation of the six, the operating force increases accordingly.

Interrogatory No. 9 is embraced in No. 8, and requires no additional answer.

10. Names and capitals of the telegraph companies.

Western Union Telegraph Company....	\$22,000,000 00
United States.....	6,000,000 00
(These companies were consolidated April 1.)	
American	4,000,000 00
Russian Extension	10,000,000 00
Bankers' and Brokers'	1,050,000 00
Insulated Lines	1,000,000 00
Franklin Telegraph	500,000 00
Illinois and Mississippi	1,500,000 00
Northwestern	1,500,000 00
Missouri and Western	209,500 00
California State	2,500,000 00
Delaware, Hudson	
Delaware, Lackawanna and Western	
Monongahela Valley	40,000 00
Burlington and Missouri River	
Genesee Valley	6,000 00
Philadelphia, Reading and Pottsville	20,000 00
Worcester and Milford	4,500 00
Worcester and Nashua	10,000 00
Vermont and Boston	130,400 00
Cape Cod	32,000 00
Susquehanna River and N. and W. Branch	46,275 00
Philadelphia and Wilkesbarre	30,000 00
Troy and Canada Junction	47,300 00
Sandy Hook Telegraph Company	25,000 00
Maine Telegraph Company	112,500 00

Capitals not known: Lawrenceburg, Aurora and Nevay; Cooperstown and Richfield Springs; Southern Express; Columbus and Appalachia; Norfolk and Petersburg; Danville Railroad; Richmond, Charlotte and Stanton; besides a number of small companies in all the States.

11. Amount of gross receipts of each of them during the year 1865, and the average of gross receipts of the Western Union and American for the years 1860, 1861, 1862, 1863, 1864, 1865.

Our knowledge being confined to the operations of the three companies here answering, the reply to the above inquiry is necessarily confined to them.

United States Telegraph Company:

Gross receipts, 1865.....	\$668,422 26
Western Union Telegraph Company, after consolidation with the New-York, Albany and Buffalo, and Atlantic and Ohio Companies:	
Gross receipts, 1865.....	\$2,314,211 41
American Telegraph Company:	
Gross receipts, 1865.....	\$1,487,627 21

Average receipts during 1860-'61-'62-'63-'64-'65:
United States (only* organized August 1, 1864)..... \$993,849 40
Western Union..... 916,000 00

12. What increase of these receipts (gross), estimated solely by reason of the war?

This information cannot, without immense labor, be given from the records of telegraph companies.

The United States Company received little or none of the Government business, but shared, during a few months, in the activity created by the war.

The American Telegraph Company lost the entire receipts of their Southern lines during the war, but the increase of Northern business about balanced the Southern loss. To do the increased Northern business required great outlay for additional wires, etc.

The Western Union Company received an increase of about 25 per cent, but had also to provide facilities therefore at large cost.

13. Net receipts of each of these lines during all of these years. In other words, the profits, whether divided among stockholders, expended in construction of additional lines, or credited to surplus.

Net receipts, etc.:	
United States (loss 1865).....	\$108,341 18
American—net receipts Jan. 1, 1860, to Dec. 31, 1865.....	1,505,888 78
Western Union—net receipts Jan. 1, 1860, to Dec. 31, 1865.....	2,639,499 04

14. In case the Government should want to buy out the Western Union, American, including its Southern lines, and the United States, what would, approximately, be the price?

Acting as the trustees of our stockholders, we cannot affix a selling price to their property, which is in our charge merely to be managed for their benefit.

15. What amount has been paid by the several companies as damages for mistakes in telegraphing or non-delivery? To what extent are these companies liable? Refer to decisions of courts on the subject.

The amounts paid for damages in the conduct of telegraph business will approximate \$100,000, and claims for a like amount remain unsettled, or are being contested.

The decisions of the courts in the several States where suits have been brought have been so various and conflicting, and the court of last appeal having not, as yet, been called to adjudicate any of the claims for damages made against telegraph companies, the measure of liability cannot be stated. A copy of some of these State decisions is provided herewith.

16. In case the Government should not buy out the leading companies, what would be their policy in competition with the Government lines?

What the policy of the companies would be, were Governmental lines now in operation, cannot well be stated. A war against private capital and enterprise, sustained on the part of the Government by taxing the commonwealth,

* By consolidation of the United States, Independent, and Inland Telegraph Companies, whose receipts are not known.

THE TELEGRAPHER.

would have such elements in it as would make the weakest policy a power. It might be to continue unchanged all its present arrangements, leaving the Government to develop its own; or it might be to adopt whatever reduced tariff the Government might use in opposition, accepting the challenge thus thrown to them.

It is quite likely that, as trustees of a magnificent enterprise, destined soon to encircle the globe, the officers of these companies would call to use all of the vigor and experience with which twenty years of practice have possessed them to protect unharmed the property of so many who look to it for support, or who pride themselves in having connection with what may prove the bond of the world's union, and its most powerful means for pacification and progress.

Their policy would undoubtedly be prompted by the instinct of self-preservation.

17. How far will it be practicable to regulate the tariffs of telegraphing messages according to the time to be consumed—that is, on the principle that "time is money"?

It would be difficult to establish any system by which discrimination could be made in favor of one class of messages over another simply on the basis of an increased tariff. State laws generally demand that, in the transaction of telegraph business, "the first to come shall be the first to be served." This rule places all on the same footing, and inspires public confidence. It should not be departed from without some great necessity, such as the public judgment would recognize. In the preference given to messages affecting the escape of fugitives from justice, and to those announcing death or great peril, there is general acquiescence. The instant, however, it became known that money could secure dispatch beyond that generally afforded, conveying the idea that preference was procurable by paying for it, the whole system as now established in the public confidence on the simplest and fairest rule would be periled.

To establish a system which, separated from any proposition of preference, would, nevertheless, pledge dispatch within a certain time, requires conditions rendering it not only possible, but uniform. The directions given by all telegraph executives are, to give promise, as to time, to none. For this there are two prominent reasons.

As the most effective means of increasing business is in expediting it, so the very enlargement of the number of messages renders immediate dispatch to all impossible, and can only be given to the one first received. When it so happens that messages are left in the ratio of the ability of the wires to transmit (a very unusual thing), then quick delivery is obtained. But when it is considered that a commercial day, for most of that class of business which depends on telegraphic communication, is limited to about five hours, and to a large class of commercial and speculative business to half that time, it follows, as a matter of course, that even in seasons of usual activity, and especially under the stimulus of any excitement by which markets are disturbed, a flood of business is thrown upon the lines, rendering any promise of dispatch in a given time to *any* of them simply impossible. The only remedy for this, and which is the most formidable of the difficulties the companies have to meet, is in such a multiplication of the wires to great commercial centers as shall secure as nearly as possible instant transmission, without violating the fundamental rule of "first come, first served." This we have aimed to provide.

The other reason which debars all promises as to time of delivery is in the character of the lines themselves. The wire working clear and steady one moment may be still and dead the next. As this paper is being written, of the score of wires which connect New-York with the far West, not one is working, and the day will be far gone before half of them are restored from the desolation of last night's sleet and storm. To-morrow, with not a breath of wind to disturb the weakest thread, a locomotive off the track may do in an instant what the storm did

last night. To fire at the wire and insulators in certain places is a favorite amusement among crack riflemen. This also, and a thousand other things, in the offices and on the lines, by rust, by lightning, by trees, by stupidity and by deviltry, by wind and sleet and flood, render telegraph communication, especially on long lines, a matter of constant uncertainty. There can be no safety in time contracts under such circumstances. Telegraph responsibilities are too weighty now to make it desirable to incur those over the conditions of which the companies can have no absolute control.

One discrimination is possible and fair. A tariff lower than the commercial day tariff may be adopted for all messages which can be transmitted during the night, or after 5 P. M., deliverable at a reasonable hour in the morning. And it may soon be that science may provide such mechanism, and such lines be built, and such clearing of the public roads be made, and such public virtue encircle and protect the telegraphic lines of even the companies which have come by the necessities of self-preservation to be branded as monopolies, as shall secure a celerity of communication now unknown. The companies here answering have gone to the extreme of their ability in providing, without discriminating tariffs, all which the public necessities seemed to demand, and design to continue so to do. The great need of the companies, in view of the interests involved in the multitude of messages intrusted to them for transmission, is *more time* in which to perform their work, and guard themselves and the public alike from errors incident to a large business crowded into the limits of so short a day as commerce now grants.

In connection with this matter of time and the portion of it available to us, reference is made to a statement made by Mr. Brown, which requires notice as being one of those sources of error which has, no doubt, led to much of the indignation exhibited by him against the companies:

"The capacity of a line such as that from Washington city to New-York, with six wires, and working only half the time, or twelve hours, at an average speed of two thousand words, may be thus set forth:

$$6 \times 12 \times 2000 \times 865 = 52,560,000 \text{ words per annum.}$$

"It becomes evident, therefore, that this number of words, fifty-two million five hundred and sixty thousand, divided into the minimum cost of operating the line, \$25,694 20, will give the charge per word at which the Government could do the public telegraphing without loss. This division results in about one-twentieth of a cent, or sixty words for three cents, the cost of a postage stamp. The average of business letters, however, will not exceed sixty words, so that from this simple calculation it will appear that the telegraphic charges on ordinary commercial correspondence may be made as inexpensive as the present postal rates. In other words, the post-office on wire will be cheaper than the post-office on rail."

Now the truth in reference to all this is, that, although it is *possible*, under favorable circumstances, to send 2000 words per hour, yet it is utterly impossible to send messages requiring care at anything like such an average rate by the present process. On the wires which are kept busiest and work the most uniformly, the average of a skillful operator's work is about 40 messages per hour, and does not exceed 240 per day. This is on what are termed "through" wires, connecting two main points only.

On a wire which is used to accommodate more than two offices, the capacity of transmission has to be divided by the number of towns connected, with a considerable allowance for the time lost in changing the use from one office to another. Thus, if a wire from New-York to Washington is used to accommodate Philadelphia and Baltimore, their average employment of it will be less than fifteen minutes per hour, with an average transmission of less than ten messages per hour of ten words each.

If Newark, New-Brunswick, Trenton, and Wilmington are included, the averages are reduced to a capacity of not over four messages per hour. And yet it is necessary for the operator to remain constantly near his instrument, although he may have but few messages to transmit, in order to be prepared to receive such as are sent to the office under his charge.

Now let the computations of Mr. Brown be examined. He claims a capacity for each wire of 2000 words per hour. Our experience limits the number to 1500 for an outside average, but this claim for the present is waived. In a day of twelve hours, therefore, the capacity of each wire is 24,000 words. From this number an allowance of ten free words for the address and signature of each message of sixty words will be granted, leaving a residue of 20,570 words, or 343 messages of sixty words each, which is claimed can be delivered at a cost of three cents each, or \$10 29 per day for the service of each wire.

Leaving this result for a moment, let the cost of sending these messages be examined. It has been claimed elsewhere that the brain of an operator is not equal to any such strain as that of twelve hours per day on such service. It would break, in six months, the healthiest and toughest organization of nerves usually found in men. It would require, therefore, two men at each end of the wire to do this labor, which, at the ordinary salaries, would be \$16 per day, or \$5 71 *loss per day on each wire*. If to this be added the cost of manager, receiver, clerk, rent, messenger service, stationery, etc., it will be found that, under the most minimum calculation, the *loss of the Government*, with a full service of six wires, would be *about three hundred dollars per day*, or *about one hundred thousand dollars per annum, without the allowance of a single dollar for current repairs or any reservation for ordinary decay, equal to forty thousand dollars more*.

In striking contrast to such a statement is the fact that the telegraph companies upon their gross receipts, and the stockholders upon dividends averaging not over four per cent, have paid to Government, during 1863, a *tax of over four hundred thousand dollars*.

Now there is a limit to telegraphic demand. There is also an absorption of the time on the wires which defies computation. Take, for example, New-York. The American Company leads to its city offices from the South twenty-eight wires; from the East, thirty-three; from the North, three. The Western Union Company brings from the West eighteen.

On Mr. Brown's theory, therefore, there might reach for delivery in New-York, during twelve hours each day, not less than *ninety-eight thousand four hundred messages, and an equal number sent therefrom to other places!*

And yet, with this vast provision of wires, all of them in use and reasonably busy, there are received from the whole of New-England, from all the large seaboard cities, from Washington, from all of Eastern Canada, and from the whole of the Southern States, an average of 2000 messages per day, with an outflow of a corresponding number. And from the whole of the Western States (including California), New-York, and Pennsylvania, there come for daily delivery only about 1400.

It is a curious commentary on Mr. Brown's statement that a "*letter of sixty words can be sent for three cents,*" that the *actual average cost of delivery alone at the New-York office exceeds eight cents per message, beside an average of over four cents of a tax thereon, levied by the United States Government, exclusive of all the taxes imposed by States, counties, and towns through which the lines are led!* In a single city in Ohio, the tax imposed was *four per cent on cash receipts!*

(To be Continued.)

Literary.

HISTORY OF THE ATLANTIC TELEGRAPH. By HENRY M. FIELD, D.D. One vol., 12mo, price, \$1.75. Charles Scribner & Co., 654 Broadway, New-York.

A great work never seems complete until its history is written. The Rev. Mr. Field has done the public great

service, as well as his brother honor, in giving to them this history of the greatest enterprise yet undertaken or completed. The author of this history has an easy, graceful, and almost poetic style of writing, which carries the reader along as pleasantly as one drifts with the tide down some deep running river.

Although the general history of the "cable" is well-known by telegraphers, there are many facts and dates connected therewith which are now for the first time placed indelibly on record.

In scanning these pages our memory wanders back to those early days when these men of indomitable will first talked of and started upon their up-hill journey. Two names are brought to mind which we had well-nigh forgot—those of Bishop Mullock and Mr. Gisborne, with whom, so far as is yet known, the idea of Atlantic telegraphy first originated, at least so far as is at present definitely known.

Mr. Field has written this history simply and naturally, and has generously given "honor to whom honor is due," and has mentioned with equal honor and praise all who have had to do with the Atlantic Telegraph from its first inception to the present time.

We can recommend this History to our readers. It is a book which every telegrapher should have ready at hand. It tells a simple story of the great work, which is the last evidence of the nobleness and greatness of our art.

THE UNION AND "THE TELEGRAPHER."

RETURNING a few days since from a sojourn of ten months in the northern wilderness, beyond the reach of mails and telegraphs, I have glanced over the columns of THE TELEGRAPHER for the past year with an interest only to be appreciated by those who have experienced a similar isolation from the busy scenes of their former life. Amid "consolidations" and other changes, I am glad to see the cause of the Union still moving steadily onward and enrolling among its members nearly all the best names of the profession. As one of the little band who met in the New-York Office one evening in the summer of 1863, and laid the corner-stone of the National Telegraphic Union, it is gratifying to my feelings to observe the interest taken in it by its numerous members, and its rapid extension even to this far-distant country. The good effects of this organization are strikingly manifest in an improved feeling among members, and a growing desire among all to become something more than mere operators—intelligent and thorough telegraphers. If this spirit continues, the American telegraphic system will ere long reach a state of perfection which the world may be challenged to equal.

It is with great regret that I notice among the members of certain Districts a disposition to create dissatisfaction among the supporters of the Union and of THE TELEGRAPHER. Some of the charges against the latter are so frivolous as to be hardly worth a formal notice, but the action of the New-York District in endorsing the preamble and resolution offered by one M. V. B. Finch at the April meeting of this year should not be passed over without comment. This resolution in effect censures the editor of THE TELEGRAPHER for presuming to criticise the actions of the leading telegraph companies, by whom majority of its supporters are employed, and thus virtually asserts that a corporation, like a king, "can do no wrong"! It is also affirmed that the proper duty of the editor is "to ascertain the prevailing views of the majority of the members," and "to give utterance only to such views and opinions as the majority have already endorsed," which means, it is to be inferred, that the editor ought to submit all his articles to the approval of the National Convention before venturing to publish them. Mr. Finch also "fails to understand on what authority he (the editor) is enabled to make the editorials of an official organ simply the expression of the editor's private opinion." Perhaps I can enlighten the gentleman on the latter point.

THE TELEGRAPHER was not established, if I understand

the matter, by the Union, but by an association of certain private individuals. The Union nominally assumed its publication, and adopted it as the medium of its official communications; but the journal has from the first been self-supporting, and has received no financial aid from the treasury of the Union. If it had proved a failure, the loss would have fallen, not upon the Union, but upon the editor and the gentlemen associated with him who generously assumed the risk of the enterprise.

It is by this authority that the editor takes an independent stand, and one in which he will be supported by all telegraphers who have the best interests of their profession at heart. If any corporation or individual consider themselves unjustly censured by THE TELEGRAPHER, they have the privilege of defending themselves in its columns, which are open to all. The day of party and political "hand-organs" and "organ-grinders" has passed away, and no enlightened telegrapher wishes to see our paper degraded into becoming the servile mouth-piece of any association or telegraph company.

In bold contrast to Mr. Finch's cringing and fawning resolutions is the manly tone of the proceedings of the Detroit District: "Believing the interests of the employer and the employé to be identical, we would seek no conflict with our employers; on the contrary, we earnestly desire to avoid it, but not at the sacrifice of our honor and manly independence."

No intelligent person in this age can doubt that the true interests of the employer and the employé are identical. It is only the old question again in regard to capital and labor, and all writers on political economy have long since shown that they are mutually dependent upon each other. But disagreements will occasionally occur in our business as well as others, showing that one party or the other misunderstands the proper policy to be pursued. Mr. Finch would have us believe that in such cases the laborer must invariably be in the wrong, but, unfortunately for him, history teaches us that the reverse more often happens.

Our organization was not instituted for the purpose of forcing unjust and arbitrary measures upon our employers, but to coöperate with them in the advancement and elevation of the profession as a whole, and at the same time to finally resist any encroachments upon the rights of telegraphers that might at some future time be attempted by a short-sighted and illiberal policy on the part of their employers. Its other objects are relatively of minor importance. As an exponent of the true policy of the telegraph companies, the General Order No. 78 of Marshall Lefferts, Engineer of the American Telegraph Company, may be mentioned as a noble example; and as long as that policy is adhered to, there will be little danger of any disagreement between the American Company and its employés. General Lefferts, in the publication of this order, has shown himself, what those who knew him best have always believed him to be, a true friend of the deserving operator; and he ought to be held in grateful remembrance therefor by all future generations of telegraphers. But those persons, like Mr. Finch, who enroll themselves among practical operators as members of the Union and then attempt to curry favor with telegraph officials by stifling free discussion of telegraphic matters and muzzling the telegraphic press, would find a more appropriate and promising field for their peculiar talents in the service of some of the despotic governments of the old world. It is a policy alike prejudicial to the telegraph companies, their employés, the public, and the profession.

I have read with the deepest interest the vigorous communication of your able correspondent, W. B. W., of Harrisburg, Pa., and the resolutions of the Harrisburg District, at their April meeting, which I think may be safely attributed to the same pen. His articles have the ring of the true metal, and the Harrisburg resolutions deserve to be framed in gold and hung in every District meeting-room in the Union. The fraternity here in the

"sunset land" echo back the sentiment, which we commend to the special attention of the New-York and one or two other Districts, that "The Union must and shall be preserved," and that "Traitors, no matter who they are, must be exposed, punished, and held up to the execration of the profession"!

Let the good work go on.

F. L. P.
New-Westminster, B. C., June 15th, 1866.

Russian-American Telegraph.

MAJOR F. L. POPE, the Assistant Engineer of the Russian-American Telegraph, has reported to Col. Bulkley that he has surveyed the country from Lake Tatla to the head waters of the Stikine River, British Columbia, a distance of three hundred miles, and found an excellent route for the building of the telegraph line the entire distance. It proceeds through a fine region of prairie land, and a light-wooded country, where a trail can be opened at a very slight expense. This is the section which was most dreaded by the projectors of the line, as all reports concerning the same led to the belief that it presented formidable obstacles to the successful prosecution of the work. The country north of the Stikine River is of like character, as near as can be ascertained. Major Pope left Lake Tatla on the 19th of February, with one white man and two Indians, and traveled five hundred miles on snow-shoes. He descended the Stikine River in a boat from the head of steam navigation to the sea, a distance of one hundred and eighty miles. He reached the ocean, seven hundred miles north of Victoria, V. I., on the 1st of May, having been seventy days out from Lake Tatla. Major Pope has shown great energy in pushing this survey through, resulting so favorably, and is entitled to much credit for his tact and skill in the management of the various Indian tribes in the Northwest, with whom he is on the most friendly terms. Contrary to the expectations of many persons, the natives manifest a disposition to give every encouragement and assistance to the great enterprise now in progress, seeming to recognize its vast importance.—*Californian Atlas*.

Correspondence.

SAN FRANCISCO, June 26, 1866.

TO THE EDITOR OF THE TELEGRAPHER:

AMONG the best articles I have ever seen in your paper is one over "W. B. W." concerning Sunday work. I say best because it comes from a positive mind, and breathes a positive spirit, and refers to a subject towards which telegraphers as well as other human beings owe a positive opinion and a positive stand.

Of all absurd, uncharitable, sacrilegious obligations, corporate companies are habitually creating, this one of fabricating a necessity for three or four hours' Sunday work is the worst and most wretched climax.

Telegraph operators are called to their posts on Sundays, there to idly sit, and wait, and search for the solemn and imperative necessity (or "emergency" as it is sometimes called) that summons them.

Tis very true, a case of sickness, or death, or disaster is a sufficient incentive for any man who has any humanity about him to come cheerfully out from a quiet Sabbath and volunteer his part of preventive or palliative labor. But for a person to be obliged to abandon the quiet of a hallowed Sabbath, blessed by the sweet memories of sacred home-teachings, separated by our God for all religious and spiritual nourishment, sanctified by the promise of his greatest blessings in its observance, and crowned by a greater and purer necessity, "Remember the Sabbath day to keep it holy," is not right, not even necessary.

It is apparent to any observing man that the most of the time of Sunday hours is consumed by men who leave ragged ends of week-day schemes or duties unperformed,

THE TELEGRAPHER.

or who conceive some wild, dreamy speculation and push it into operation telegraphically on Sunday, to the dis- pleasure and disgust of better-informed and better men. I object to be thus instrumentized to pass the financial food to the ever-greedy maws of any class of men, and I object for my fellow-members, who are endowed with the same privileges, secular, physiological and sacred.

It is rapidly discovering to the eyes of all people, as civilization and Christianity advances, that much work which is done on Sundays is not only useless, but deteriorative and suicidal. There are endless arguments that speak convincingly, aye, entreatingly, from the records of nature's laws and duties disobeyed and discarded.

Need I summon such proofs to describe and define the necessity for a decent time of rest? I would not hope for a time when telegraphers shall have an unbroken and uninterrupted day for rest upon physiological grounds alone. It is the duty of every man who has had the benefit of an education, particularly in this professedly Christian land, to extend his own impressions to his fellows, and when they are deprived of any privileges, to assist them. It has been taught me by every variety of authoritative and venerated tie of early home-life, by the responding convictions of my own heart, and by the ever-ascending eloquence of surrounding pulpit, even here in the West, that the Sabbath day was a hallowed one, that through it flows all spiritual, all wholesome, all sanctifying, all regenerative and all real heaven-sent development; and I regret that I am obliged to disobey and disregard such thoughts and obligations for what God calls false and minor ones.

I appeal to all members of this Union to array themselves on the side of conscience—and, if some have none, come out for nature's sake—and let each District wherein this state of affairs exists call the subject up, and if the Union of telegraphers is to consolidate and apotheosize the individual and collective rights of its members as well as "to promote the character and standing of the profession," and invite the "benign influence of our Creator," let us at least use it in favor of right, and address a respectable and solicitous petition to our employers, who, I think, will consider, entertain and concede.

CALIFORNIAN.

PITTSBURG, Pa., July 17, 1866.

To THE EDITOR OF THE TELEGRAPHER:

An article appears in your issue of the 16th inst. (No. 32), dated Harrisburg, and signed "W. B. W." in which the writer assumes that the author of an article in No. 29, dated Pittsburg, and signed "T." is of the "collegian order." As I am the only telegrapher of the "collegian order" in this city, the inference is that I am the author of the article signed "T." which is not the case. I am not the author of that article.

And, furthermore, since "W. B. W." is pleased to assume that telegraphers of the "collegian order" are of low order in capacity, I, for myself, refute the assumption.

I am ready to meet him or any other gentleman, and discuss any and all questions in practical telegraphy, including the utility of telegraphic colleges. I am not ashamed of my capacity, or of the business in which I am engaged, and I stand ready at all times to defend myself in both.

Yours truly,
W. W. KEICHNER.

GREAT BARRINGTON, July 18th, 1866.

To THE EDITOR OF THE TELEGRAPHER:

In an article relating to the Atlantic cable, published in the London *Times* of June 23, the following statement appears, which is in such direct controversy with an operator's practical ideas of telegraphy, that I desire to learn if such results have actually been accomplished.

The Times says: "Out of a length of more than seventeen hundred miles, a coil has been taken from its center, the copper insulator stripped clean of its insulation for a foot in length, and in this condition lowered over the

vessel's side till it rested on the ground. Yet, through this the clearest signals have been sent—so clear, indeed, as at one time to raise the question whether it would not be worth while to grapple for the first old Atlantic cable ever laid, and, with these new instruments working generally through it for a year or so at least make it pay its cost."

I have always adhered to the theory that the slightest defect, through which water could percolate to the conducting wire of the cable, would effectually interrupt the electric current at that point. If, as *The Times* would have us believe, a foot of the conductor in direct contact with the water will not allow the escape of the entire force of the battery, what has become of the old established doctrine, that the most effectual ground wire is one which is connected with a body of water? If a foot of bright copper wire inserted in water does not form a good connection what can be the utility of such perfect insulation as has been considered an item of the first importance in the construction of submarine cables?

It has been proved that the earth offers no resistance to the passage of electricity, consequently no metallic conductor, of a small size, will make so desirable a path for the current to follow. How, then, was the "escape" avoided, and what instrument was used for signaling through seventeen hundred miles of cable, with such a difficulty to overcome?

DISTRICT PROCEEDINGS.

GREENCASTLE DISTRICT.—Regular meeting Saturday, August 4th, postponed until Tuesday evening, August 7th.

Met pursuant to adjournment Tuesday evening, August 7th. Meeting called to order at 8 o'clock P. M. Director in the chair. Ten members present.

Minutes of previous meeting read and approved.

Report of District Treasurer read and accepted.

The following persons were elected to fill the various District offices: J. C. Showerman, District Director; T. S. Beeler, Local Director; A. Ainsworth, District Secretary; George Jones, District Treasurer.

The election of delegate and alternate to the Convention resulted in the election of J. C. Showerman, delegate; A. Ainsworth, alternate.

Mr. George H. Godfrey, of New-Albany, admitted a member on certificate of withdrawal from the Louisville District.

Moved and seconded that the committee appointed to solicit subscribers for THE TELEGRAPHER make their report at the next meeting.

Meeting adjourned at nine o'clock.

HARRISBURG DISTRICT.—Annual meeting called to order at ten P. M., August 6th, by District Director. Quorum present.

Minutes of last meeting read and approved.

District Treasurer's report read and accepted.

Committee on delinquents not ready to report.

Election of officers. Following officers chosen: Local Director, W. D. Sargent; District Treasurer and Secretary, A. R. Kiefer.

The vote for District Director and delegate held open until next special meeting to allow distant members more time to vote.

Adjourned at 11 P. M.

Special meeting called to order at 9 P. M., August 10, by District Director.

Rules suspended, and proceeded to election of delegate and District Director, resulting as follows: District Director, J. B. Lyndall; delegate, W. B. Wilson.

District Director read his annual report. Accepted, etc. Adjourned at 9:45 P. M.

DETROIT DISTRICT.—Annual meeting held August 6th.

After the reading of the minutes of the last meeting the District Director made a few remarks regarding the state of the Union, and particularly of this District. He reported thirty-four members now enrolled on our District record, all of whom were in good standing. Within the past year eleven new members had been elected, three resigned, one transferred, one died, and only one expulsion since the organization of this District. He called the attention of members to the necessity of a more regular attendance at our meetings.

District Treasurer read his annual report, which was accepted and placed on file.

On motion Mr. Irvine, rules were suspended and Mr. James Johnson, of Windsor, C. W., was elected a member of the Union.

District Director appointed Messrs. Irvine, Lee, and O'Brien tellers, and the meeting proceeded to ballot for District officers for the ensuing year. For delegate, Mr. A. H. Reese received 12 votes, Mr. G. W. Lee 4. On motion Mr. Lee, the election of Mr. Reese was made unanimous. For alternate delegate, Mr. G. W. Lee received 15 votes, Mr. A. H. Reese 1. On motion Mr. Reese, election Mr. Lee made unanimous. For District Director, Mr. T. W. Priest received 15 votes, being the whole number cast. For District Secretary and Treasurer, Mr. J. C. Sullivan received 14 votes, Mr. R. W. O'Brien 2. On motion of the latter, Mr. Sullivan's election was made unanimous. On third ballot Mr. Edgar Winter was unanimously elected Local Director of Detroit Office.

Mr. Priest expressed his thanks for the honor conferred on him by a third election as District Director.

On motion of Mr. Irvine, a resolution expressing the thanks of the District to Mr. Priest for the able and efficient manner in which he had discharged the duties of his office was unanimously adopted.

Mr. O'Brien offered a resolution, changing the amount of fine assessed on absentees from twenty-five to fifty cents, and after considerable discussion it was agreed to.

After instructing the delegate elect to offer certain amendments to the Constitution and By-Laws the meeting adjourned.

ST. JOSEPH DISTRICT.—A special meeting of this District was held July 22d, for the consideration of the report of the Committee on By-Laws. The report of the committee was read, when it was decided to vote upon each article separately. The By-Laws, as adopted, were in substance the same as those of the New-York District.

The chair, in a few remarks, announced the death of the infant son of Mr. Martyn, of Leavenworth.

Mr. McDill offered the following resolutions, which were adopted:

"Whereas, It hath pleased God in his wisdom to bring sorrow upon the household of our brother and friend, Daniel E. Martyn, by the removal from its midst of their infant child;

"Resolved, That to the parents of the deceased we tender our deep and heartfelt sympathy in this, their bereavement, assuring them, as we devoutly believe, that their little treasure will be restored to them in a better world.

"Resolved, That a copy of these resolutions be forwarded to the parents of the deceased, also that a copy of the same be forwarded to THE TELEGRAPHER for publication."

A vote of thanks was tendered the Committee on By-Laws for their services, and meeting adjourned.

The annual meeting of this District was held August 5. District Director in chair.

The Treasurer asked for an extension of time in which to prepare his report, stating that some of the members who were absent had not paid their dues. He desired to make a full and complete report. Granted.

The election of a delegate to the Baltimore Convention being in order, Messrs. Cook, Martyn, McDill, and Woodring were nominated. The chair appointed Messrs. Cook and Wood as tellers. Messrs. Cook, Martyn, and Woodring withdrew their names from the list. On motion of Mr. Martyn, Mr. McDill was declared the delegate by unanimous vote.

Mr. Martyn was chosen as alternate by unanimous vote.

Nominations were then made for District officers. Messrs. Gould, Woodring, Martyn, and McDill were nominated for District Director. Two latter-named gentlemen withdrew. Vote stood: Gould 6, Woodring 3. Mr. Gould was declared elected. Mr. Goulding being the only candidate for Secretary, received the full vote, and was declared elected.

For convenience and mutual benefit of the District, Mr. Gould was elected District Treasurer in connection with his duties as District Director.

On motion of Mr. Gould, it was

"Resolved, That the thanks of this District are due and are hereby tendered Messrs. Woodring and McDill for the faithful manner in which they have discharged the arduous duties devolving on them during the past year."

Some discussion was had on the subject of "Management of THE TELEGRAPHER."

Mr. Martyn moved that each member forward to the delegate his views on matters that interest the Union, or will be likely to be affected by the action of the Convention. Carried. Adjourned.

CORRY DISTRICT.—Annual meeting held August 6th.

Meeting called to order at 8 P. M. Fifteen members present, eight absent.

Treasurer's report shows \$39 in the treasury.

Minutes of last meeting read and approved.

Election of applicants for admission to the Union. R. F. Powers, J. W. Stafford, S. O. Malin were unanimously declared elected members.

Election of officers for the ensuing year. E. Wade received a majority of votes, and was declared reelected District Director; W. C. Long received a majority of votes, and was declared reelected District Treasurer; H. Dwyer received a majority of votes, and was unanimously declared reelected District Secretary; J. A. Vaughan received a majority of votes cast, and was declared reelected Local Director at Corry, and with a reprimand to be more attentive to the duties devolving on him than he has heretofore.

J. L. Craig was unanimously declared elected Local Director at Renovo, Pa.; D. A. Short received a majority of votes, and was declared reelected Local Director at Kane, Pa.

Delegates to National Convention. E. Wade received a majority vote, and was declared elected delegate. W. C. Long received the next largest number of votes, and was declared sub-delegate.

On motion,

"Resolved, That all members be notified to report by telegraph or mail to the District Director their reasons for absenting themselves from regular meetings, on or before the day appointed for such meeting." Carried.

On motion,

"Resolved, That a committee of three be appointed to investigate the reasons of absentees." Carried.

On motion,

"Resolved, That J. A. Vaughan, A. J. Crawford, J. M. N. Gilds be appointed Executive Committee." Carried.

"Resolved, That the applications of Radigan and Stewart be rejected, not conforming with the Constitution and By-Laws of the Union."

On motion, adjourned.

WASHINGTON DISTRICT.—Regular meeting August 4th. Adjourned for want of a quorum.

Special meeting August 7th. Ten members present.

Director reported that notice had been received from the President of the expulsion of Wallace C. Barron, in accordance with recommendation of this District.

The names of certain members, suspended for non-payment of dues, were also reported, as well as certain others who have been restored to good standing by settling their accounts.

Messrs. Findlay and Johnston were appointed a committee to look after delinquents.

A committee, consisting of Messrs. Hahn, Sarvis, Young, Findlay, Ludwig, and the Director, was appointed to prepare instructions to the delegates to the Baltimore Convention.

D. J. Ludwig was elected Local Director for the ensuing year. The meeting also transacted considerable other business of a local nature, and adjourned at 9:30 P. M.

CINCINNATI DISTRICT.—At a meeting of the Cincinnati District held Aug. 4th, 1866, the following resolutions were unanimously adopted:

"Whereas, It has pleased the Almighty to remove from our midst our much esteemed friend and fellow-operator Joseph S. Clark, of Dayton, Ohio; therefore,

"Resolved, That while we humbly bow in submission to the will of the divine Creator, we feel that we have lost a genial companion and true type of the profession.

"Resolved, That in his loss we feel the absence of a moral, diligent, and industrious cooperator, ever attentive to the duties assigned him, and whose affability won for him the friendship of all.

"Resolved, That our heartfelt sympathies are tendered to the bereaved parents, and that his memory will be highly

cherished by the fraternity and his numerous friends and acquaintances.

"Resolved, That a copy of the above resolutions be sent to the parents of our deceased brother, and that they be published in the daily papers of this city and also in THE TELEGRAPHER.

"J. C. MATTOON, H. L. SMITH, IRA C. BELLows, Committee."

PHILADELPHIA DISTRICT.—August, 1866. Adjourned regular meeting called to order at 8:20 P. M., 20th inst. James Partrick, chairman *pro tem.*

Minutes of July meeting read and approved.

Mr. M. A. McSorley submitted a report of the financial condition of this District which shows a balance of \$137 42. An auditing committee were appointed to examine this report and make known the result at our next meeting.

It was declared that nominations for local officers were now in order.

R. J. Black and M. D. Buckwell were proposed for District Director; Geo. W. Snyder and E. R. Blackman, Local Director; N. J. Snyder and J. Winthrop, Local Secretary; J. Winthrop, W. F. Ziegler and G. S. Mott, Local Treasurer.

The result of the election was as follows: R. J. Black, District Director; E. R. Blackman, Local Director; N. J. Snyder, District Secretary; J. Winthrop, District Treasurer.

On motion, the election was made unanimous in each case.

Election was next held for delegates to the National Convention, according to the nominations made at the last meeting. The result was as follows: M. D. Buckwell and R. J. Black, delegates; Geo. W. Snyder and C. D. Middleton, alternates. Mr. R. J. Black (who had been absent during the early part of the meeting) stated that having held the position of District Director for two years previous to the term now expiring, he positively declined a reelection, urged the claims of others for the office. The matter was postponed until next meeting.

Reference was made to instructing delegates as to the policy of certain measures likely to be decided at our National Convention. It was finally declared that "this District confides in the judgment of the delegates chosen, and will not trammel them by any instructions whatever."

After a lengthy and interesting session the meeting adjourned at 10 P. M.

CHICAGO DISTRICT.—Meeting convened 9:15 P. M., Aug. 8. Director in the chair. Annual reports from District Director and Treasurer received and placed on file.

Letters were received from the President of the N. T. U., approving the action of this District expelling E. Payson Porter, Superintendent of Eastman's Commercial College, Chicago, also expelling E. H. Whited, W. S. Lewis, C. D. Jacobs and S. Smith for non-payment of dues.

Wheeler Robinson, of Amboy, was proposed and elected a member of the Union. C. C. Johnson was also proposed for membership. Application referred to committee.

On motion of Mr. Chandler, a vote of thanks was unanimously tendered A. H. Bliss, District Director, for the able manner in which he has conducted the affairs of this District the past year.

The election of officers for the ensuing year being in order, the following is the result:

District Director, A. H. Bliss (reelected); Secretary, R. A. Sandford; Treasurer, J. N. Bradley.

Delegates to Baltimore: A. H. Bliss, F. G. Churchill, E. B. Chandler, Geo. C. Yorke. Alternates—W. D. Anderson, Geo. Makle, L. L. Johnson, A. D. Dibble.

A special meeting will be held Monday evening, Aug. 20th, to consider matters pertaining to the Convention. Our meeting was very full and enthusiastic. Our delegates propose to go to Baltimore to labor, and not to visit. We trust all delegates will go with the same intention. Adjourned.



SATURDAY, SEPTEMBER 1, 1866.

WITH this issue we commence the third volume of THE TELEGRAPHER, with encouraging signs of the same success in the future as has attended this paper since its first issue. That the patronage of this paper continues in such a generous manner is a sure evidence of the need of such a journal, and that after so many years a real want has been supplied. THE TELEGRAPHER is not, perhaps, what it ought and might be, and no one is more conscious of this failing than ourselves, but it must necessarily continue lacking many essential points until its Editor can give it his undivided attention. It is our firm conviction that its circulation and usefulness might be doubled, if some one were able to give it his sole attention. By a little prompt and energetic management its receipts, we have no doubt, would be tripled, if not quadrupled, and this being the case, its reading would be far superior, more interesting, sprightly, and timely.

If such an Editor will take the control, we promise to give him, after a brief respite, such aid as lies within our power. Will the coming man step forward and make himself known?

The Election of Officers and any New Business.

AFTER two years of service, we have no doubt the present officers will be glad to lay off the harness of their several offices immediately after the adjournment of the Convention. For one we can answer "Yea, verily."

Those members who have found fault with the apparent slowness or neglect of some of the chief officers, know little of the amount of work which must be performed, and the many vexations attending its performance. If these duties could be attended to during the day, the same as other business, their performance would not be onerous, but when they fall upon a man so occupied with his other duties as our President has been for the last two years, they become somewhat burthensome; yet we are confident no one would do them more willingly than he.

We do not make these remarks complainingly, nor to excuse any shortcomings, nor yet to prejudice any one against accepting the several offices, but to make the members willing to let those who have borne the brunt of the fight go lie down and rest themselves.

We (that is to say, the editor of this paper, whose name has stood at the head of this column now two years, and who subscribes to this article) make the following nominations without consultation with a living person:

- For President, W. H. Young, of Washington.
- For Vice-President, Geo. B. Cowlam, of Chicago.
- For Recording Secretary, J. J. Flanagan, of Louisville.
- For Corresponding Secretary, Geo. C. Maynard, of Washington.
- For Treasurer, A. L. Whipple, of Albany.
- For Editor of THE TELEGRAPHER and Supply Agent, somebody in Boston.

In our remarks upon the amendments to the Constitution we forgot to mention the exorbitant bonds exacted of the Treasurer by the last Convention. We presume to say that never before in the history of this country, were \$7500 bonds asked for the safe keeping of \$2500. We felt this exaction an imposition and still do, and but for the persuasion of a friend, we would have declined the honor of our office on this account solely.

Several Districts are now in a syncopic state because of the neglect of duty by the District Officers. Two Districts have not made a report since we have held the office of Treasurer, and one large District has made but one report within the year, although a second has been in condition to be made for some months. To remedy this neglect, which if left to itself will become an evil, some prompt and sharp legislation will be required. Place such a penalty upon such delinquent officers as will make them attend strictly to their duties. With great respect we subscribe ourselves,

New-York, August 23d, 1866.

Lewis H. Smith, Editor.

TELEGRAPHIC MISCELLANEA.

WESTERN UNION STOCK sold on the 25th ult. at 57½.

OFFICE U. S. MILITARY TELEGRAPH, WAR DEPARTMENT,
Washington, July 31, 1866.

D. H. Bates, Assistant Manager Department of the Potomac.

Charles A. Tinker, Chief Operator, War Department.

Albert B. Chandler, Cipher and Disbursing Clerk, War Department.

A. H. Caldwell, Chief Operator, Army of the Potomac.

Dennis Doren, Superintendent of Construction Department of the Potomac.

Frank Stewart, Cipher Clerk, War Department.

George W. Baldwin, Cipher Clerk, War Department.

Richard O'Brien, Chief Operator, Department of North Carolina.

George D. Sheldon, Chief Operator, Fortress Monroe, Va.

M. V. B. Buell, Chief Operator, Delaware and Eastern Shore Line.

John H. Emerick, Chief Operator, Army of the James.

GENTLEMEN:—I have been instructed by the Secretary of War to present to each of you one of the silver watches which were purchased and used to establish uniform time in the Army of the Potomac, marked "U. S. Military Telegraph," as an acknowledgment of the meritorious and valuable services you have rendered to the Government during the war, while under my direction, as an employé of the United States Military Telegraph.

It gives me great pleasure to comply with these instructions, and I will take this occasion to thank you, for myself, for your faithful performance of the important trusts which have been confided to you in the various capacities in which you have served, and especially as "Cipher Operators."

Yours, very truly,

THOMAS T. ECKERT,
Ass't Sec'y of War, and Sup't U. S. Mil. Tel.

THE drovers at West Albany recently presented Mr. John Morgan, Operator at that place, with a purse of eighty dollars.

GERSHOM B. HUBBELL, Assistant Manager of American Telegraph Company's Office at Hartford, and billiard champion of Connecticut, who has held the cue against all comers for the two years ending August 18, had a grand reception at Hartford on that day. A new tournament will soon be inaugurated to secure a successor to Mr. Hubbell.—*Boston Journal*.

MRS. R. SMITH, the telegraph Operator at Swanton Junction, Vt., had one side paralyzed by the effects of electricity during the shower of Saturday evening, August 4, and has been unable to speak since.

THE cable dispatch of the 8th of August, containing the King of Prussia's speech and other news, comprising about eight hundred words, cost the newspaper press six thousand dollars in gold.

According to agreement with newspapers west of New-York, those papers that received copies of the cable telegram were to pay a fair proportion of the expense. Not fully understanding the excessive cost of these dispatches, two or three enterprising Western New-York journals, namely, *The Utica Herald*, *Troy Times*, and *Poughkeepsie Eagle*, ordered copies of the telegram.

Upon settling the telegraph bill on the 9th, it is said, they were rather astonished to find that they were expected to pay about a thousand dollars each.

It is probable that no more cable news will be ordered by these papers, some of which are represented as very sick.

MONTGOMERY, Ala., Aug. 6, 1866.

FOLLOWING in the wake of our "Yankee" contemporaries, a contest for a silver key and the championship of the Twelfth Division American Telegraph Company, took place yesterday morning, August 5, between Taylor Adams, of Mobile, and A. H. Bauer, of Montgomery.

Mr. Adams sent five hundred words in twelve minutes and thirty-six seconds, and Mr. Bauer sent the same in thirteen minutes. Some very good writing was made on both sides, but being the first contest very fast time could not be expected. Immediately after the closing scenes of congratulation, etc., Mr. Bauer challenged Mr. Adams to another trial, and we may expect some lively times in the sunny South.

THE patrons of the Telegraph will be glad to learn that Gen. Marshall Lefferts has accepted the appointment of Engineer of the Consolidated American and Western Union Lines. Gen. Lefferts' long experience in the telegraph business of the country, and his standing as a gentleman of science and as an electrician, render his connection with these great lines an important one to the press and commercial public—and this is still more strengthened by his position as Engineer of the Atlantic cable.—*Express*.

NEW SOURCE OF MAGNETIC IRON.—A new and singular source of magnetic iron has been discovered. It appears that the shavings of iron and steel, and especially the long spirals produced in turning iron on the lathes, are highly magnetic, especially in the case of soft iron. This magnetism is permanent, and M. Greiss, the discoverer, has observed that the south pole is always at the end which is first touched by the tool.

THE offices of the American Telegraph and National Express Companies, with several buildings, were burned at Atlanta, Ga., on Sunday night, August 5.

CHANGES, ETC.—G. B. Davis, late of the Orange and Alexandria R. R. Telegraph, has been appointed Clerk in the Interior Department at Washington.

H. Dwyer, late of Corry, Pa., has been appointed Superintendent of Telegraph and Train Dispatcher of the O. C. R. R., *vice* J. Luther.

Mat Davin, late of the Insulated Lines in Boston, has accepted a position with the American Company at Halifax, N. S.

Mat Gordon, late of the Franklin Line at Brookfield, Mass., has accepted a position with the New-York N. F. and L. Telegraph Company at Port Hood, C. B.

Ralph Pope, late of the Collins Overland Expedition, has been appointed Station Agent of the Housatonic Railroad at Pittsfield, Mass., *vice* F. C. Lowry, resigned.

W. C. Hall, late Manager of the United States Company's Washington Office, has been retained in charge of the same office by the W. U. Company.

CHARGES against P. H. Nunan are pending in the Washington District.

PATENT CLAIMS.—56,886.—**ELECTRIC TELEGRAPH.**—John Blackie, New-York City.

I claim the construction and application of a switch to a line connecting two batteries, in such a manner that the electric current between the batteries may be reversed or transferred from one to the other of the poles of said batteries at will, whereby the batteries shall be made to neutralize each other, and thus remain dormant for the time being, substantially as set forth.

57,032.—**TELEGRAPH SOUNDER.**—Elisha Wilson, New-Haven, Conn.

I claim, First, the employment of the open valve stop, v, or any equivalent therefor, to control the sounding at the end, at the mouth, or at the side of air, gas, or vapor sounding instruments for telegraphic communication.

Second, Modifying the mouth and throat and generally reducing the dimensions of air, gas, or vapor sounding instruments, in order thereby to diminish the amount and force of the current until it ceases to essentially interfere with the free action of the armature lever, l, and valve, directly or indirectly opposed to it, and also to economize the sounding medium used, and to improve the tone for rapid utterance for telegraphic communication.

Third, The combination of the valve, n n, and cord, d d, to both raise and fill the reservoir in one act, for the same purpose.

Fourth, The combined use of two or more reservoirs in connection with each instrument of a small expansive reservoir or gas bag, that the supply may be continuous while the reservoir is being raised and filled to supply air for telegraphic sounders.

56,988.—**ELECTRO-CHEMICAL TELEGRAPH.**—Austin Ford Park, Troy, N. Y.

I claim the recording of telegraphic signs by electro-chemical action, in a chemically prepared wet or moist line or path made in a strip or fillet of paper, as the latter is moved along to receive the telegraphic signs, substantially as herein set forth.

An experienced operator has invented an improvement in printing telegraphs which secures great promptness and accuracy; but being unable to spare the means necessary to patent and introduce it, offers to assign the whole or a part of his right for that purpose. As the instrument is propelled by a weight, and composed wholly of clock-work, it can be set up ready for work in a few minutes, and is therefore admirably adapted to traveling or exhibition, and the sale of rights.

Address A. J. Partridge, 4th Division Q. M. G. O., Washington, giving references. — *Washington Intelligencer.*

(The above is the beginning of another failure to rival the House printing instrument.)

A TELEGRAPHIC FEAT.—On Monday last, Col. Palmer, Secretary of the Western Union Company, had a half hour's interview with George H. Mumford, Esq., the former sitting in the office in this city, and the latter in San Francisco. The conversation was rapid and uninterrupted for a considerable time, answer succeeding question in quick succession. Mr. Creighton was in the office at Omaha, Nebraska, and was there listening and participating in the conversation. At length the communication was abruptly closed. Col. Palmer asked Mr. Creighton at Omaha, what was the matter. The answer came very soon that a heavy thunder storm was prevailing on

the plains between that place and Salt Lake City, and the lightning had shook and shivered a number of telegraph poles. It is said that nearly one hundred poles have been struck by lightning this season, quite a new thing in that direction. In the course of the interview referred to, the time of day was asked. It was 3 o'clock and dinner time in Rochester, while it was but 12 o'clock at San Francisco.—*Rochester Union*, Aug. 1.

THE ATLANTIC CABLE—OFFICIAL BLUNDERING.—It is an almost incredible fact that all the dispatches from Europe by the cable have thus far reached this city at a very late hour of the night.

Upon investigation for the cause of delay in the reception of dispatches from Aspy Bay, we find a system prevailing which for stupidity surpasses anything ever met with.

This system appears to be to receive at Port Hood the whole batch of messages at Aspy Bay—then they are sent to Sackville—then to Calais, and then to New-York—each different place receiving the whole number of messages at its office before attempting to send any through.

It seems that for the sake of economy there is but one operator stationed at each place. An additional force will probably be put on one of these days, but precisely when we are not informed.—*New-York Paper*.

By consultation with our correspondents in New-Orleans we have discovered that our dispatches, though promptly sent from the South, are usually five hours in coming over the wires. An explanation of this singularly slow telegraphing is more difficult to obtain.—*Tribune*.

THE NORTHERN OVERLAND TELEGRAPH.—This telegraphic line will be a gigantic one, extending through British America 1200 miles; through Russian America, 900 miles; across Behring's Straits, 184 miles; across the Gulf of Anadyr, 210 miles; and thence overland to the mouth of the Amoor River, 1800 miles—or a total of 4294 miles.

A New-York firm is now engaged in electro-plating with copper a number of large iron screws to be used for fastening the bed-plate to the timbers of one of the United States steam frigates. In order to prevent any action of acid upon the iron, a thin film of copper is first deposited from an alkaline solution. It is found that a current of higher intensity is required to decompose an alkaline than an acid solution. Therefore, after the screws are completely covered with a thin film of copper in the alkaline solution, they are transferred to a sulphate bath, and the deposit is continued to any thickness desired. Some of these screws are six feet in length and three inches in diameter, and they are being covered with a copper coating of a thickness equal to half a pound to the square foot.

MR. BRIGHT, a working jeweler of Leamington, has just perfected a novel application of electro-magnetism as a motive power for clock-work, which promises to bring modern timepieces to a state of absolute perfection. By the new arrangement the pendulum, the bob or ball of which consists of an electro-magnetic coil, is made to oscillate by means of a feeble current of electricity, this beating true seconds, with a train of three wheels only. A number of clocks, in different parts of a house, or even in different houses, can be connected together by a single wire, and the whole number will indicate the same time to a second.

The irregular working of the Indo-European Telegraph Line still continues, one-fourth of the messages received being found to occupy from sixteen to twenty days in transit. The telegraphic announcement of a select committee being appointed by the House of Commons to inquire into the state of telegraphic communication with India has given great satisfaction. Throughout India the telegraph lines are in a deplorable condition. For a distance of two hundred and thirty miles between Kurrachee and Bombay the line has been constructed without insulators, the wires being simply nailed to the posts.

The Council of the Society of Arts have this year awarded the Albert Gold Medal to Professor Faraday, "for his discoveries in electricity, magnetism, and chemistry, which in their application to the industries of the world have so largely promoted arts, manufactures, and commerce." The health of Professor Faraday not admitting of his attendance at a public meeting, Mr. Hawes, Vice-President of the society and Chairman of the council, accompanied by Sir Thomas Philips, Vice-President of the society, and Mr. Le Neve Foster, the Secretary, waited upon the Professor at his residence on Saturday last and presented him with the medal.

LATELY the lightning played strange freaks with the telegraph wire and poles in the town of Wilton. In the distance of half a mile, thirteen poles were knocked into cocked hats, some of them being thrown ten or fifteen rods from their original position. What may appear singular is the fact that a number of the poles were "skipped," remaining intact, while others adjoining were reduced to splinters.

THE Indian telegraph lines are a disgrace to the Government. *The Times*, of India, says that messages in some instances during May occupied fifty-six hours from Kurrachee to Bombay, seventy-four hours from Madras, and one hundred and thirty-three from Calcutta.

THE joker of *The Boston Advertiser* says: "It is a little curious that the first news over the Atlantic Cable should have been Pacific news, but not so much so when one reflects that the first question it must have put to itself was amicable. When the rope got into its only kink, in mid-ocean, the question probably was: 'Am I cable or am I knot?'"

We clip the following items from *The Mechanics' Magazine*:

ELECTRIC lights have been definitely established in the two lighthouses of the Hève, near Havre. The intensity of each of these new lights is estimated as equivalent to 5000 carcel lamps, and it may be increased two-fold, with little additional cost, whenever the condition of the atmosphere requires it.

A good gutta-percha cement is made by dissolving gutta-percha in chloroform in quantity to make a fluid of honey-like consistence. When spread it will dry in a few moments. Heat the surfaces at a fire or gas flame until softened, and apply them together. Small patches of leather can be thus cemented on boots, etc., so as almost to defy detection, and some shoemakers employ it with great success for this purpose. It is waterproof, and will answer almost anywhere unless exposed to heat, which softens it.

The system of urban telegraphs in Paris is being gradually carried towards perfection, and the rapid increase in the use of the wires by the public shows how much these improvements are appreciated. In the first place messages can now be sent from one station to another without passing through the central office as heretofore; under the present arrangement the average time for the delivery of a message by the telegraph is reduced to twenty minutes; the word Paris has been suppressed from the direction; and, lastly, the messengers who deliver the telegrams are authorized to receive the messages in reply and to collect the charges, so that a person receiving a telegram may answer it on the instant without quitting his house.

The following curious experiment is extracted from M. Parville's "Causalités Scientifiques." Into a bell-glass full of air a central tube is made to carry a slow current of hydrogen. At the end of the tube, which is carried nearly to the dome of the bell-glass, electric sparks are made to pass. The hydrogen is immediately ignited, taking the form of small luminous spheres, which rush about in all directions. After a few seconds there are an infinite number of these little luminous globes, which seem to play at hide and seek without ever coming into contact.

HOW CYRUS LAID THE CABLE.

BY JOHN G. SAXE.

[THE laying of the first Atlantic cable occasioned the following ballad in praise of the "courage, faith, and zeal" of the projector. The eulogy is now well deserved.]

Come, listen all unto my song,
It is no silly fable;
'Tis all about the mighty cord
They call the Atlantic cable.

Brave Cyrus Field he said, says he,
"I have a pretty notion,
That I can run a telegraph
Across the Atlantic Ocean."

Then all the people laughed and said
They'd like to see him do it!
He might get half-seas-over, but
He never could go through it;

To carry out this foolish plan
He never would be able;
He might as well go hang himself
With his Atlantic Cable.

But Cyrus was a valiant man,
A fellow of decision,
And heeded not their mocking words,
Their laughter and derision.

Twice did his bravest efforts fail,
And yet his mind was stable;
He wa'n't the man to break his heart
Because he broke his cable!

"Once more! my gallant boys," he cried;
"Three times!—you know the fable!"
("I'll make it thirty," muttered he,
"But I will lay the cable!")

Once more they tried—hurrah! hurrah!
What means this great commotion?
The Lord be praised!—the cable's laid
Across the Atlantic Ocean!

Loud ring the bells; for flashing through
Six hundred leagues of water,
Old Mother England's benison
Salutes her eldest daughter!

Now long live President and Queen,
And long live the gallant Cyrus!
And may his courage, faith and zeal
With emulation fire us!

And may we honor evermore
The manly, bold and stable,
And tell our sons—to make them brave—
How Cyrus laid his cable!

THE ATLANTIC CABLE.

THE following telegram was received by Reuter's Telegraph Company, London, at 5:55, July 30, from Mr. R. A. Glass:

"VALENTIA, July 30.—The annexed dispatch will explain the absence of intelligence from the United States and Canada, and the delay in the transmission of messages to places west of Newfoundland. The public will be glad to know that the obstruction is only temporary, and likely to be removed in the course of the present week. The Atlantic cable works with great perfection; the communication is rapid and distinct, at 6½ words or about 34 letters per minute."

"Cyrus Field, Newfoundland, to Stewart and Glass, Valentia:

"Many thanks for your congratulations. On our arrival here I learned with much regret that Mr. Mackay had not been able with the appliances he had to repair the cable across the Gulf of St. Lawrence.

"I at once chartered the steamer Bloodhound, and she is now alongside the Medway taking in cable, grapnels, etc., and leaves to-night (Sunday). We hope to get the cable repaired this week. I have chartered the steamer Dauntless to carry messages across until the cable is repaired, and she left for her destination this morning, and will be there on Monday night."

THE FIRST MESSAGE FROM AMERICA RECEIVED ON THE
31ST JULY.

The following telegram, being the first message from

America by the cable, was received in London on the 31st July:

NEW-YORK, July 29 (morning).—The representatives of Tennessee have been admitted to Congress.

Congress adjourned yesterday.

MESSAGE FROM THE COLONIAL SECRETARY TO THE GOVERNOR
OF CANADA.

The following telegram has been forwarded by the Earl of Carnarvon to Viscount Monck, Ottawa, Canada:

"I am commanded by the Queen to convey to the Governor-General of her North American Provinces Her Majesty's congratulations on the completion of the Atlantic Telegraph, and the strengthening thereby of the unity of the British Empire.

"Her Majesty includes her ancient colony of Newfoundland in these congratulations to all her faithful subjects.

"July 28, 1866. CARNARVON."

NEWS FROM THE UNITED STATES.

New-York advices of August 1, received by the Atlantic Telegraph cable, appear in the English papers of the 4th, the day the Cuba sailed from Liverpool.

THE CABLE AND AMERICAN SECURITIES.

The London Daily News' city article says: "The process of equalization of prices as between England and America, through the medium of the cable, continues to prejudice the question of American securities."

A letter to *The London Times* from Valentia says:

"Every day a constant gossip is kept up between the Great Eastern in the Atlantic and the shore end here. The *precis* of intelligence compiled has been considerably enlarged in its details. Before telegraphing for their latitude and longitude at noon a rather full *résumé* of what is passing in Europe is always forwarded, and almost as soon acknowledged, with thanks and congratulations. Thus those on board are kept fully 'posted up' in what is passing in Europe, and if everything goes well the Great Eastern will land the shore end with authentic intelligence from England and the Continent not more than twelve hours old. These messages in no respect interfere with the regular tests for 'conductivity' and insulation of the wire, which are incessant day and night. As a rule, however, no conversation messages are sent to the ship after dark, for, as a matter of course, during the night the difficulties of cable laying are increased by the darkness, and the signals through the wire are as much as possible confined to mere tests of its perfect efficiency."

THE Hughes type-printing instrument has been successfully placed in operation between Liverpool and Manchester, Liverpool and London, and Manchester and London by the United Kingdom Electric Telegraph Company. The late severe gales did not interfere with the company's wires and poles until the extraordinary storm of the 11th of January last, the like of which had never been known since the first erection of the electric telegraph in that country. And yet the extent of damage done by this extraordinary and unprecedented gale and snow is certified by the engineer not to exceed in the whole, for the materials and labor employed, the sum of £1500.

A NEW FEATURE IN LAMP-LIGHTING.—A German named John A. Heyl, living in Boston, has invented a method for lighting all the street lamps in a city simultaneously. The lighting of lamps by electricity is no new thing, but what Mr. Heyl claims as the new feature in his invention is a stop-cock combined with an electric battery, by means of which the operator at any central point can turn the gas off or on, at his pleasure, at the same time igniting it with the electric battery. The stop cock is the original feature of the invention, any number of which can be operated at the same time by a piece of platinum wire. In case the wind blows the gas out, it will ignite again of its own accord from the heat which is retained in the wires, without any electricity whatever.

The Telegrapher:

PUBLISHED BY THE

NATIONAL TELEGRAPHIC UNION.

THE UNION is an association of telegraph operators, for their own mutual benefit and support, and THE TELEGRAPHER is published to disseminate information among its members, as well as general telegraphic news.

THE TELEGRAPHER is published in New-York, on the first and fifteenth of every month, and besides matters of associate interest, is devoted to the interests of telegraphers all over the world, and will contain telegraphic information from all parts of the globe.

It is not confined to any one policy, but will seek to correct abuses, give honor and praise wherever and whenever due, and endeavor to elevate the standard of operators, both morally and scientifically.

It will not support any one person or corporation, but will aim to treat all alike, censuring either or both, when merited, and praising alike when praise is won.

Its columns will not be open to any one for personal abuse, nor for personal profit at the expense of others, nor will it contain anything that the most fastidious would not read.

THE TELEGRAPHER will contain Original Articles upon any and all subjects of interest to the fraternity and profession; Extracts from Works on Telegraphy, Electricity, and Magnetism; Statistics; Improvements in Telegraphy, Telegraph Instruments, and Materials; Correspondence; Poetry upon Telegraphic Subjects; Telegraphic Literature; Incidents and Items of Personal Interest; Promotions; Removals; Resignations; Marriages and Deaths of Telegraphers; Newspaper Extracts of Telegraphic Items from any and every city, town, State, or country.

We invite the co-operation of every one who is directly or remotely connected or interested in Telegraphy, in this undertaking to establish and maintain a first-class telegraphic newspaper, and for any items of news or personal telegraphic interest, articles or newspaper extracts upon any of the above-mentioned subjects. We will cheerfully pay a reasonable sum for any trouble and expense gone to in behalf of this paper, and for any original articles which we may use.

We request aid from all, whether high or low, and will make a fair return for the same.

THE TELEGRAPHER is a medium quarto of twelve pages (the last four of which will be devoted to Advertisements of Telegraphic Materials, or any other respectable business), with clear type and on good paper. It will aim to be a first-class telegraphic newspaper, and not to be surpassed in the vigor and spirit of its editorials, nor in the variety and freshness of its reading matter generally. On all subjects which it discusses, it will aim to be correct, independent, clear, conscientious, and fearless.

Whatever the experience of its conductors—whatever industry, energy, and a liberal expenditure of money can accomplish toward making a good and powerful paper, are pledged to the subscribers of THE TELEGRAPHER. The Second Volume commenced on the first of last December.

THE TELEGRAPHER is the only telegraphic journal in this country which has lived to celebrate its second birthday.

TERMS: invariably in advance.

FOR A SINGLE NUMBER OF THE PAPER,	9 cts
FOR ONE COPY FOR ONE YEAR, BY MAIL, TWENTY-FOUR NUMBERS,	\$3 00
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Club rates are not allowed to District Directors unless for persons not members of the Union.

THE PAPER WILL ALWAYS BE DISCONTINUED WHEN THE PAID SUBSCRIPTION EXPIRES.

Remittances for subscriptions may be made by mail, in National currency, at our risk—the attention of the Postmaster being called to the mailing of the letters; but Post-Office orders or drafts on New-York, being safer, are preferable.

ADVERTISEMENTS. Terms, Cash.

FOR EACH LINE, FIRST INSERTION,	. . . . .	15 cents
FOR EACH SUBSEQUENT INSERTION, EACH LINE,	. . . . .	10 "
NO ADVERTISEMENT INSERTED FOR LESS THAN	. . . . .	60 "

We have no traveling agents, nor has any one authority from us to collect money for subscriptions; but District Directors or others who may interest themselves in procuring subscribers at our advertised rates, and remitting us the money, will receive our thanks—and an *Extra Copy for one year for every Club*.

Leaded advertisements are charged for the actual space occupied. Advertisements of Patent Medicines are charged double rates. Advertisements of Quack Doctors excluded.

Newspapers, by inserting this Prospectus, and sending a marked copy to the Editor, will be entitled to an exchange.

All communications and letters relating to THE TELEGRAPHER must be addressed to the Editor, care P. O. Box 6077, New-York.

NOTICE TO CORRESPONDENTS.

All communications to, or articles for insertion in, THE TELEGRAPHER, must be addressed to the Editor, care P. O. Box 6077, New-York.

No notice will be taken of anonymous communications: the name and address of the writer must always accompany each article or communication.

Correspondents sending articles for insertion must write briefly, and on but one side of each half sheet of paper.

The Pall Mall Gazette makes a suggestion which is as applicable in New-York as in London:

"There is one bit of news which, when published daily, will be far more interesting to the commercial world of Europe than any other likely to reach us by telegram from America. That bit of news is the price of gold at New-York, a point on which almost all commercial enterprise between the old and the new world turns. We earnestly recommend to Reuter & Co. the early and regular promulgation of this information, which, if transmitted privately to Europe and preferentially circulated among a favored few, must give them extraordinary advantages over the public. It will not cost more to obtain it than it now costs to tell us that there have been riots at New-Orleans, or that General Grant has been promoted to the grade of full general, and Sherman to that of lieutenant-general."

To the Operators of the Hartford Office.

GENTLEMEN:—It is very unkind in you to compel me to publicly vindicate the "Champion Telegraphic Club of New-York City and New-England." Your protest in *The Hartford Courant* of June 1st, addressed to me, although of itself uncalled for, is prefaced by sentiments which the editor would never have published had he not been misinformed by yourselves. I must, therefore, treat the whole article as emanating from you. You say these telegraphic contests are not such wonderful affairs as some papers would make them. That they are simply "boys' play," none of the more experienced operators participating in them. When I consider that *none of you* can send, in any shape, over thirty-seven words per minute of the heading on American blanks, I am surprised that you should publicly traduce those operators who have sent forty-four and two-third words per minute in a manner which called forth the congratulations of the best telegraphers in New-York and New-England. The assertion that these contests are simply "boys' play" and not participated in by the more experienced operators, is a misstatement for which I can see no excuse. A more pointed aspersion could not have been conceived. Mr. Finch, Manager of the New-York Office, has favored these contests, while Mr. Downer, Assistant Manager, is one of the officers of the club, acting with Mr. Fairchild (Manager of the New-Haven Office), and Mr. Davis (Assistant Manager of the Boston Office), as Judge. These gentlemen have signified their satisfaction at the manner in which the last contest was conducted, which contest seems particularly to have given rise to your article in *The Courant*. Some of the first movers toward the organization of the club—as Mr. Roberts, Night Manager of the Boston Office, and Mr. Gentry, one of the best senders in the country—favor these contests, and, being members, participate in them; while Mr. Bradford, Manager of the Worcester Office, has expressed his satisfaction concerning the "sending" of the contestants. Besides these gentlemen, whose names I am authorized to use in answer to your article, there are many other operators of experience, from New-York to Portland, who have given their money, talents and influence to elevate and encourage the club, the prime object of which is the improvement of "sending." When you publicly denounce these contests as simply "boys' play," you publicly calumniate an amount of talent which Hartford operators, with all their genius, never dreamed of. Your protest contains nothing which our judges have in any instance failed to consider. Very respectfully,

Wm. R. PLUMBS,
President of the Telegraphic Club of New-York and New-England.

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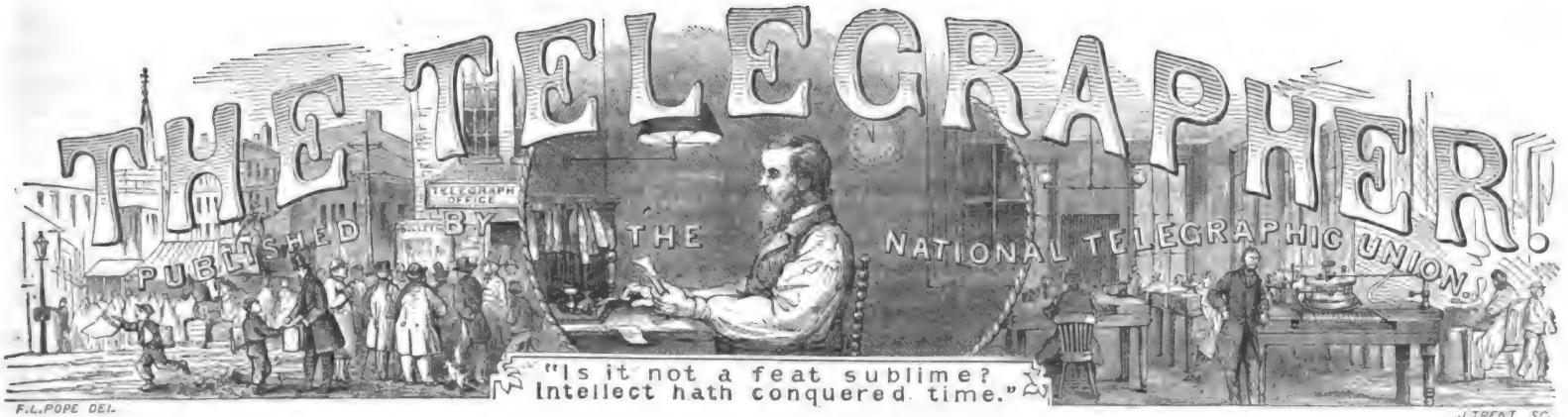
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Vol. III.

New-York, Saturday, September 15, 1866.

No 36.

GENERAL OFFICERS

OF THE

NATIONAL TELEGRAPHIC UNION.

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W. H. YOUNG, VICE-PRES'T, Box 163½ Washington, D. C.
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J. C. UPHAM, RECORDING SECRETARY, P. O. Box 4064, Boston, Mass.
S. P. PEABODY, CORRESPONDING SECY., Box 128, New-Albany, Ind.

LETTER FROM THE POSTMASTER-GENERAL.

(Concluded.)

It ought to be remembered, also, that a multiplication of long messages would defeat the very purpose of the telegraph, which is that of *instant communication*. The chief use of the lines is commercial, and demands *instant dispatch*. Messages are short, that time may be gained. It thus happens that, whereas one wire could easily do the work of four or more if the whole day were available, we have to multiply wires to do the business which is, of necessity, crowded into a few of the central hours of the day. This multiplication of wires for commercial purposes has provided ample facilities for social correspondence at other hours, as well as for press business.

The calculation of Mr. Brown, based upon the ability to send a certain number of words per hour, must submit to a serious reduction from the fact that, for every ten words paid for, at least ten more are sent free. Here, for example, is an ordinary message which fairly represents a large portion of the social business given to us. All that portion of it which is italicised is sent without charge:

No. 71.

New-York, April 26, 1866.

Hon. John B. Robinson,
Willard's Hotel, Washington.

Hope to meet you in the morning at ten o'clock.

Jonathan Bartlett, Astor House.

10 words, 75 c. paid. Rec. 2:20.

Thus, in a message where ten words are paid for, over twenty are sent free. True, part of the free matter has no value to the parties, but every part is essential to the company in conducting the business, and equally exhausts its time.

Messages such as this, when the weather is steady, pass along rapidly. If the weather, however, becomes heavy, or the atmosphere becomes surcharged with electricity, as is so often the case during the summer, or when storms have deranged the wires, the repetition of words and parts of messages are often demanded. And thus it often happens that a message which, ordinarily, could be sent in a minute, requires five. The use of our wires is also greatly diminished by the almost hourly casualties which happen to them at some portion of the route. The tail of a boy's kite connecting two wires will diminish our facilities for a whole day to the extent of all that one wire could do.

When the message is commercial, treating of large values, the purchase of gold or stocks, in which figures or sums occur, operators are naturally cautious and transmit with increased care, asking the repetition of all doubtful words. All these things reduce the average of work done. From causes which are by no means unfrequent half of the wires are also thrown out of use, and thus in many ways proving how impossible it is to form a correct judgment of the actual by the possible.

After all these deductions are made, there remain four classes of business which consume a large portion of the time of the lines:

1. The large amount of messages sent each day, called "inquiry messages," relating to the hastening of answers, non-deliveries on account of address, and the numerous causes for correspondence between officers.

2. Dispatches between the offices and the auditor's department in the correction of the various reports, the settlement of balances, etc.

3. The correspondence growing out of the general management of the line, its repair, reconstruction, etc.

4. The correspondence of railroad officers, to whom the right of free transmission is given in consideration for rights of way, transportation, etc., etc.

All these form a mass of matter which seriously reduce any estimates of time available for paid business, and which must enter into the calculation of the line's capacity. It is not too much to claim a deduction of at least one-fourth from our available use of the wires from this cause alone.

There is also in the tension of the brain of an operator a limit to all use of the wires when crowded to their capacity. The necessary absorption of the mind is exhausting. To crowd the work beyond a certain rate would require relays of men to relieve each other. Six hours' continuous service of this character is all that a young person is capable of performing and maintain health. A duplicated force, therefore, would have to enter as a part of any calculations of the labor needed for the supposed service.

In view of all these considerations, it must be obvious that nothing short of actual experience derived from daily contact with the service can give the correct data for the solution of all these questions, and that in the employment of the wires, in tariffs, in methods, in courtesies, in everything, intelligent self-interest is the wisest guide.

18. What is the extent of wire, computed as a single wire, of the "Western Union," "United States," and "American," and what is the average per mile of the cost on the basis of capital of each? In answer to this, state, as near as you can, the amounts invested in buildings, offices, etc.; also amounts paid for rents of each. As the Government may want equal facilities for its telegraph purposes, I may need the information. Deducting the cost of these from the amount invested in such buildings, etc., or the gross amounts of which the rentals computed at six per cent interest would make from the actual capital, will leave the residue of the capital as representing the cost of the poles, wires, apparatus, etc.

The length of wire owned by the Western Union and

United States companies is 60,000 miles. The average cost, as based on the now united capital, is \$450 per mile.

This embraces, besides the poles, wires, and apparatus, the following:

Invested in buildings.....	\$95,208 88
Stocks in other companies*.....	1,429,900 00
Office fittings.....	360,000 00

The lines of the American Company embrace 30,000 miles of wire. The average cost per mile, based on the capital, is \$133 88. This embraces, besides poles, wires, and apparatus, the following:

Invested in buildings, etc.....	\$53,466 80
Office fittings.....	400,000 00

"You will oblige me, also, by informing me what amount of Government tax was paid by your two companies during the year 1865, and its percentage on their gross and net receipts; also its percentage, as near as you can give it, on the messages transmitted, on the basis of ten words to the message; also the amounts paid for messenger service in delivering messages."

The amount of United States revenue tax paid by the United States Telegraph Company for 1865 was..... \$33,115 52
Western Union Telegraph Company for 1865..... 114,678 25
American Telegraph Company for 1865..... 71,881 30

Percentage of Tax.

United States Telegraph Company on gross receipts.....	5 per cent.
on messages paid.....	4½ cents.
Western Union Telegraph Company, on gross receipts.....	5 per cent.
on net receipts.....	11½ per cent.
on messages paid.....	6 cents.
American Telegraph Company, on gross receipts.....	5 per cent.
on net receipts.....	28½ per cent.
on messages paid.....	8½ cents.

The amount of tax named as paid is exclusive of all those collected by State, county, and town authorities, which in some States, approximates that paid to the General Government.

Messenger Service.

Amount paid to boys for delivery, etc.	
United States Telegraph Company.....	\$43,624 00
Western Union Telegraph Company.....	68,074 99
American Telegraph Company.....	86,858 86

These amounts are exclusive of rents and clerk-hire of delivery departments.

The Postmaster-General has requested reference to the remarks of Senator Brown respecting the use of the different kinds of machinery for telegraphic purposes, and the comparative rapidity of transmission attainable by them.

The first of these which came into use after that of the Morse system was the House printing instrument. It was a beautiful and ingenious machine, and was hailed as a valuable addition to telegraphic art. Its capacity to print, by the use of a single wire, in clear Roman type, seemed the very perfection of machinery, and could leave nothing

* These stocks are in lines west of the Mississippi, and held for the security of connection.

ductors of this kind will be but little more than one of the old kind with but one conductor. The laying of it will cost the same, and the risk encountered the same, while the advantages of having six or eight conductors will render it six or eight times as valuable, and will diminish the expense proportionately, and consequently must, if practicable, lessen the cost of telegraphing to the other continent six or eight fold. Prof. De Morat is now testing in his new cable the principle of producing a light current, by a "dry pile"—that is, having the second coating of each cylinder of different metal, to the end that the amount of electric fluid necessary to produce an active current may be diminished. Of course, experience alone can determine which is the best submarine cable; but so far as has been tried our American cables have been surpassed by none other. We therefore trust they will soon be fairly tried, and, if found superior, used instead of the English make, in future enterprises of the kind.—*American Journal of Mining.*

DOWN SOUTH;
OR,

A Northern Telegrapher's Adventures in
New-Orleans.

[From The New-Orleans Crescent.]

CONCLUDED.

I WAS confounded by this indifference in a matter so serious; they had not even the curiosity to turn round. From the little they did say afterwards, I gathered that it was no unusual occurrence.

The bare fact stared me in the face that if I remained in the South, I must at some time expect to be embroiled in these matters, and that, if disease spared me, the knife or firearm would not.

Mr. Flick by this time had come down stairs, apparently cool and satisfied. Arrangements had been made for a "meet" in the ensuing evening. One of the young men up stairs had promised to lend a splendid revolver to Mr. Hotspur, and to make the "inauguration of the affair pleasant," as they called it, they had all gone to work down the office-dust in beer.

It so happened that I had recently made a purchase of a revolver, but I acknowledge the instrument was a source of much uneasiness to me. I did not understand its construction, and my natural antipathy to firearms prevented me from making any free investigation. A gentleman had loaded it for me. I had drawn it to half-cock but could not get it down again. Notwithstanding that I had many objections to lend it, the manner in which Flick asked for it admitted of no denial. Thus I was unwittingly implicated in the quarrel by having advanced an instrument for its purposes.

But this was not all. Flick told me that I must accompany them the next day to the ground, because there was a general rising against him, and he might require me as a witness or second. I was not a suitable person to appear as vice-champion in such a fearful cause, and I prayed to be excused. I foresaw certain danger to both of us, and urged that it was not my desire to be shot so far from home, and so suddenly. But I appealed in vain. "What do I care," said he, "if you are shot? If we both escape, you can attest to my justifiable conduct; but if we are both shot it does not matter, as I shall not then want your evidence."

This was spoken so deliberate as to be horrible. How I wished that I had never come to the South. The contempt shown of human life, the diseases incidental to the climate, the dangers that already surrounded me, were terribly impressed upon my mind; and with a sorrowful, trembling step I went to my room that night. It might be the last night of my life. Every phrase of the difficulty appeared discouraging; there was no avenue of escape; yet I determined to have nothing to do with the combat.

My pride revolted at the idea of appearing frightened.

In nothing am I so sensitive as in the fear of appearing to possess a less amount of courage than men generally. Alone, in my room, I gave vent to my feelings. There were none who pitied me, or had any sympathy for me, so I had to shed my tears alone. After all I entertained a wish to see the combat, providing I could pass safely through the scene. What a story I could tell my Northern friends of the bravery I had evinced, and the dangers I had dared. I fell asleep and dreamt that I was a victorious hero. My darling Sophy Nisba rushed upon the scene, entreating me with tears to spare a further effusion of blood.

Next day was spent in a series of preparations for the event of the evening. They were made silently and with the greatest coolness. A wicked leer in the eyes of every one acquainted with the project showed the interest and pleasure they felt in the prospect of a mortal combat. They went from one to the other laughing, prospecting, and even betting upon the result. The preparations were of such a character that nothing was wanting; indeed there was to be nothing to mar the enjoyment of a "fine sport." Flick and Hotspur had acquired an implacable hatred for each other. Disdaining to speak, look at, or approach each other, they were not loth in vowing a fearful vengeance.

So insensible were their companions of the terrible nature of things, that arrangements were made for a plentiful supply of tobacco, and something called "dew," for the journey, and the affair was to be wound up by a supper and convivial drinks—a full pint to constitute a drink, which drink was to accompany (of course) every toast; toasts were to be proposed every quarter of an hour; but, should a longer interval elapse without a toast, a supplemental drink was to be allowed at the expiration of every quarter.

These unfeeling creatures, having perfected matters, went so far as to endeavor still farther to embitter the antagonists. Up to this time I had hoped that some reconciliation might take place. I relied upon the humanity of my companions to put a stop to so barbarous a project. The full horror of the matter struck me forcibly, now that the preparations were so made as to admit of no peaceable solution of the difficulty. I was told that the aim of Flick was unerringly sure. Thinking this might arrest or intimidate his opponent's action, I hastened to him and acquainted him with this, uttering also a remonstrance on the iniquity of the affair. I was laughed to scorn, called a "skinned lubber," and told to vanish. The latter junction I did not fail to obey.

In despair at the aspect of affairs I resolved to run from the office, but I was watched and arrested by Flick, who, with his second, ordered me to sign a paper that I was witness to the insult offered him. Although this was the only object of the paper, when I saw the second adding to it his signature, I felt as if it was my death-warrant. They told me I must be present upon the ground. Perceiving that it was impossible to evade them, I made up my mind, quaking with fear, to abide the consequences, but to use my legs at the first opportunity.

It was agreed by the two seconds that at five o'clock the party should take the cars and ride to a spot called the Oaks, the scene of many such encounters; that revolvers should be the weapons used, and five paces the distance. The utmost secrecy was to be preserved, and all was to be quiet and orderly, so that this sport might be enjoyed. As the hour of five approached all were in a state of excitement. The seconds were communing angrily together; little knots of persons collected to discuss the chances of the combatants; bets made upon the result, but not a single word of condolence for either. Each individual had some instance of his own experience in the field to relate. I saw I was fairly netted in this unfeeling company, and could not, for the life of me, avoid indulging in visions of blood, of arrest, imprisonment, or probably a more fearful end of this tragedy,

Despite all my efforts to look calm and indifferent I was seriously agitated. But it was impossible to retreat. I anxiously watched the clock, wondering at the indifference of the parties concerned.

At half-past four I was told to go and fetch my revolver. Like a streak of lightning the idea of escape flashed across my mind. This might perhaps stop the conflict. Congratulating myself with this humanitarian view, I willingly assented, and made for the door. As I was speeding away a tall gent from the office overtook me. He was designated to accompany me, for an eagle eye was governing matters, and we walked quietly along. I told him I had signed a witness paper, when he coolly informed me that I must go armed, as such an act, by custom, implied my readiness to take the place of the party whom I had substantiated from blame.

Upon our return, a group of six were waiting at the door. Flick and Hotspur shook hands affectionately with those of their office companions left behind. A large packet, securely sealed, protruded from Flick's pocket, deeply significant of what might happen, and, in my eyes, foreboding something fatal and solemn.

In pairs we marched towards the horse-cars. Espying one about to start, we sprang in, and were soon seated with "to the Oaks" on our lips. It was made a point of care to separate the combatants as much as possible. Now we are on our way, passing houses, stores, and public buildings in quick succession. The sun had begun to set as we emerged into the country, fringing the sky with a blood-red hue, and casting broad shadows of his golden effulgence over the fields on either side. The evening was exceedingly calm. Fields, lanes, brooklets, farms were passed. Anon a hamlet would reveal to our gaze its happy inmates reposing from the labors of a well-spent day, in corners which were still reached by the glittering sun. The scene was one of glorious and sublime serenity. "On, on," my companions urged, "or it will be too dark." I thrust my head out of the window, and as I gazed upon the spires of the city we were leaving, I thought how probable it was that some of us might be brought back bleeding and maimed, perhaps myself for one. The calm and tranquil beauty of the scenes around us, the birds chirping in the fields previous to resting for the night, the merry shout of the country lad, borne along on the quiet air, awoke in me feelings I shall never forget.

What a contrast between the sanctity of my meditations, the respect I entertained for human life, and the callous indifference of my comrades. But even they began to look serious as the critical moment arrived. The guise of mirth was removed, and they conversed more reasonably.

As I was a stranger to these scenes, my several companions bore me company, and spoke candidly with me. Escape was out of the question, and, knowing this, they did not care to conceal the facts of the case.

The antagonists were determined upon each other's destruction. Strife to the death was their intention. All the petty prejudices and animosities of the crowd were also involved in the circumstances of this quarrel. Deep-seated dislike, long-concealed grudges were but waiting an opportunity for satisfaction; and in the difficulties which were to be raised at this meeting that opportunity was to be sought. I was appalled, horror-stricken at my position. Such was my fear that my tongue cleaved to the roof of my mouth, the roots of my hair seemed to tingle, and I felt a ghastliness of feature.

Mr. Flick told me he feared there was a deliberate project afoot to annihilate him. He solicited my assistance, which, in my state of confusion and fear, I promised.

Mr. Hotspur told me he believed it was agreed upon by a party favoring his opponent, to load his revolver with blank cartridges. If this was found to be the case he and his friends were to make an onslaught upon them.

To insure my safety he advised me to join his side, and this I promised to do. I knew not what I did or said.

At this juncture a circumstance occurred which caused our whispering to subside.

A gentleman entered the car, neatly clothed and of a somewhat prepossessing appearance, but having with somewhat of the detective in his manner. To satisfy our doubts I was requested to ask him if this was his profession. He sternly rebuked me for forgetting all propriety of conduct, and gave me an evasive answer to my question. Inwardly convinced that he would, in some way or other, be connected with the result of our mission, I tried to persuade my companions from pursuing their intention for the present. But they sturdily refused.

Before relating the tragic scene which followed, I will describe in a few words my comrades.

My readers will already be acquainted with Messrs. Flick and Hotspur. Pumblechook, the dark, ferocious young man was there. The rest of the company consisted of Mr. Slabsides, a tall unceremonious young man, who had come for fight, and who had little regard for either party, irrespective of their fighting qualifications; Mr. Ruznick, the second of Flick, a young man from Scotland, bold and determined, eternally chewing, and jealous of the honor of his principal; Mr. Dionysius Bubbo, a stout, agreeable-looking fellow, but full of deviltry and anxious for a row, acting as second to the Virginian for no other reason, I believe, than to promote the cause. Including the combatants, we numbered seven persons, or "blokes," as I heard us termed.

The signal was given to jump out. We had arrived at a secluded spot adjoining a cemetery, distant about four miles from the city. The fast thickening shades of evening warned us that we had no time to lose, and the preliminaries were soon arranged, a field selected for the ground, and the five paces measured off. The witnesses of these movements were looking on with every manifestation of satisfaction, and I stood bewildered, when suddenly a heavy hand was laid upon my shoulder, and a voice of thunder exclaimed: "Gentlemen, I arrest you in the name of the law ! you!" (And here he gripped me like a vice.) His efforts to seize upon any of the others were fruitless.

They all scampered off in different directions, leaving me an unsuspecting prey in the hands of our acquaintance of the cars. My suspicions of his being a detective were therefore fulfilled. I was overcome with conflicting emotions, dread, remorse, nervousness. My legs were no longer able to support me, and I sank to the ground in a paroxysm of fear. My guilty comrades, seeing that he could only hold one, and I that unfortunate person, came around us with looks fearfully foreboding of evil to the detective.

They protested that the excursion was one of innocent pleasure. Finding protestations of no avail they threatened a rescue, but the detective was inexorable.

"I know you all," he said, "I am acquainted with all the ramifications of your plot, and have preconcerted measures to stop it. Mr. B., I arrest you with complicity, and shall hold you answerable for any retaliatory step your companions may take."

To make matters worse, they were now resolved upon a rescue. Drawing knives and revolvers, they made a simultaneous attack upon my "guardian," who instantly drew forth a long blade, and hurriedly shouting: "If I die he dies with me," pointed it at my breast. I saw the gleam of steel, heard the tramp of many feet, and then for a moment became insensible. My situation was frightfully dangerous; a band of desperadoes on the one hand, determined, no doubt, with good intentions, to rescue me; and a doggedly determined officer of the law on the other, ready to sacrifice my life with his own.

The whole recollections of a lifetime crowded upon me in this moment of time. I thought of home, of loving parents, and the faces of cherished friends in that far-off State. I implored my companions to desist their attacks. I told them I did not want to die out there, so far from

home. "My life," I exclaimed, "is at the mercy of this kind, good gentleman (these words were intended to be affectionate and conciliatory), and if you attack him I am a dead man." I verily believe they enjoyed the spectacle, or else wanted to see me killed, for they continued to make "raids" upon the officer, and only halted when his blade pricked my breast. In these moments I cast my eyes heavenwards in unutterable fear, expecting to feel the piercing incision that would end my days. My companions would pause awhile, and then, from a distance of twenty or thirty yards, would make repeated sallies upon the detective, who, finding matters growing desperate, drew also a revolver.

Mr. Pumblechook now protested against going further, averring his intention to support the officer if more reasonable conduct was not displayed. Still there was tumult, and hesitancy and rage, but I was not molested further.

The nature of my predicament in the intervals burst upon me like a thunderclap. Arrested for complicity in a deadly combat, with the most indubitable proof against me, tried, found guilty, and sentenced to imprisonment. These were my prospects. I entreated with suppliant knee and tearful eye for pardon, but the officer said the law must take its course. Nevertheless, he was a kind, affable man. I was surprised to find how intimately he was acquainted with us all, and with our schemes. He knew our names, business, residences and habits. As we walked side by side towards a country restaurant he told me many wonderful stories of his profession. I managed, by repeated expostulation (for I was yet much frightened) to prevent any further outbreak. At the restaurant we all drank. All but myself participated eagerly in the refreshment, if I might judge from the gusto with which glass after glass was bolted. Whilst on our way to the city I am happy to say my companions negotiated with the detective successfully for my release. A subscription of \$100 was promised amongst them to be paid as the price of my release, and as a bribe for the officer's silence. He accepted it, and I was free! Oh, how my heart beat with pleasure! I could have embraced them all! I was free! free! and saved!

We rode slowly and silently back. On arriving at the office I procured an advance on account of my salary of two dollars, and treated them all to a glass of beer for their generosity. I nearly felt disposed to pay for a second.

But with the prospect of a renewal of these scenes, combined with the terrors of disease and plague, I secretly resolved to seek a more congenial clime. When I first arrived it was with the intention not to stay.

Four days after these events I was on board a steamboat bound for my native land, the North. Flick and Hotspur were still irreconciled, but now that I am at a safe distance they may quarrel, they may fight, and they may fall; the yellow fever may come, the cholera may swamp them up for all I care. B.

Oh, B.! Oh, B.! Next time you write an adventure be more careful of your manuscript, or, like this, it may fall into the hands of those whom you vituperate and misrepresent. Fortunately we can add our postscript to your foolish tirade. What a credulous creature you are! This lucubration of yours betrays, better than any other pen could have done, your ownself. You have finished; and now you shall know this bloody episode of Southern life and character was the result of a well-concocted scheme, and intended to teach you better than to believe all the extravagances of the Southern revilers. Each actor was assigned his part, and each performed it well. The detective was one of them. Every particular of this scheme was preconcerted. We need scarcely tell you now that the detective has not received his \$100.

Had you remained a few hours longer this trick would have been explained to you, and its moral and interpretation given. But your own judgment might easily have discriminated between the realities of life and the machina-

tions of a few companions, who after all, wished you well.

W. H. N.

Correspondence.

SPRINGFIELD, MASS., Sept. 19, 1866.

TO THE EDITOR OF THE TELEGRAPHER:

My attention has just been directed to the letter of your Panama correspondent. He characterizes many of my statements in a previous letter as "ridiculous" and "shallow pretenses," and calculated to deceive.

I endeavored in former letters to impress your readers with the comparatively primitive, but progressive state of telegraphing in South America, the remunerative salaries paid, the encouraging prospects which are opening to telegraphers, by the construction of many contemplated lines under the auspices of generous governments. I informed them there was no great demand for operators, and that the chances for situations, as such, were not very favorable at present.

If your Panama correspondent thinks those statements have a tendency to "deceive" your readers into a belief that South America is a land flowing with "milk and honey," it is because he has a very low estimate of their intelligence and reasoning faculties. They were not written with a view to deceive, and if they have any such tendency they are much regretted.

Mr. Fawcett is certainly indebted to the scintillations of a wonderfully-developed, fertile genius for many of his statements.

I do not regard Mr. Fawcett's experience and facilities as sufficiently ample to warrant him in arrogating the "Alpha and Omega"—the exclusive fountain-head—of telegraphic knowledge of South America. It is very evident this cynical moralizer has had some very bitter experience in life; he looks with cold distrust on everybody who does not practice his narrow standard, for his remarks are tinted with dark "thoughts that burn and words that breathe" in his gloomy, misanthropic mind. He looks askance, with that peculiar obliquity of vision characteristic of "Chatham street" philanthropists, and exclaims, with a semblance of Platonic morality: "O filthy lucre, fine houses, fine dresses, what a curse are you! what a baneful influence do you exert on erring humanity!" and with a sigh over human frailty sits down to enlighten the readers of that muddled, vain, lucre-serving journal, whose fag-tail he has the honor of representing.

O weary, assiduous "men at the key," cease your arduous operations, and list to this moralizer, for know those toilsome hours are spent from a love of filthy lucre, fine houses, and fine dresses. Go, devote your time and labor to such noble, unsordid pursuits as your Panama correspondent has chosen, among storied ruins of former greatness, in a place where primitive Eden fashions prevail among an unfortunate colored population.

Panama, owing to its peculiar location, derives most of its importance from its passing trade and travel; its business is chiefly in the hands of foreigners, many of whom are "Chatham street" adventurers, who charge exorbitant prices for any necessary the passing traveler may require; and whose clerks ply also the useful avocation of "special correspondents"—not penny-a-liners, that would imply a partiality for "lucre," etc., which Mr. Fawcett affects to despise. It is much to be regretted that your Panama correspondent has not a broader sphere for acquaintance with South American telegraphing, the "honesty" and "partiality" of its people. Certainly those of the "Cienaga" are not the most favorable for forming opinions of South American people. Those who think, as your correspondent does, of the general dishonesty of South American officials are very much mistaken, and judge from very imperfect experience; and a person who asserts that such a mercenary disposition is characteristic of South American women—to "sell their smiles for ready cash," and "their only partiality being for filthy lucre

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fine houses, and fine dress"—must, generally, be a person of loose habits and principles, whose experience of South American women has usually been of that unfortunate class whom he has erroneously taken for correct types of the whole sex. But this bantering is unprofitable and unnecessary, for your intelligent readers will discern the shallow pretensions and ungenerous aspersions of Mr. Fawcett.

It is gratifying to learn what interest there is being taken in the telegraph in South America. I have now before me journals from the Pacific and Atlantic countries, glowing with enthusiasm and deserved praise on the success of the Atlantic cable, and earnestly discussing Senor Bellestrini's enterprise—which undertakes to lay a submarine cable from Brazil to Europe by the Azores—the feasibility of laying long submarine cables being now happily demonstrated. S. Bellestrini's project is much agitated, and meeting, apparently, a great deal of favor, not only from the public, but from the Brazilian Government, and one of the newly-appointed cabinet officers—a personal friend of Senor Bellestrini—has pledged not only his influence, but a subscription of \$500,000 to the support of the enterprise; meetings have been held in the large towns through Brazil, in which the project was discussed, and the most deep interest manifested in its importance and advantages; resolutions have been drafted and an association formed to open books for subscription. There are many interior lines now in course of construction or contemplation.

The allied republics, Peru, Chili, Bolivia, and Ecuador, have entered into arrangements to construct an extensive line through their dominions, and a commission was appointed by Peru, last June, according to the arrangements made, to proceed to Europe and make arrangements there for the requisite material, and also to take notes on the European telegraph systems, which are to be compared with the "Morse." I regret to say this commission has been temporarily postponed, owing to the renewed troubles between the allied republics and Spain.

The influence and importance of the telegraph is being felt in every phase of society in South America. Even apart from its commercial advantages, the people are sensible of its direct aid in all matters pertaining to advancing civilization, and movements are being made to further their wishes.

Those countries have hitherto been comparatively dormant in public enterprises, and are now awakening to a sense of their necessity and their own illimitable resources. The short period of their history affords very interesting subjects of reflection. While Spanish colonies they became the theater of a bloody conflict, attended by all the appalling features of a savage war, and though feebly supported by each other, and embarrassed by the want of political union, they surmounted every obstacle and compelled their Spanish foes to depart from their shores vanquished; but no sooner was this conflict over than they began to feel with added weight domestic strife and dissensions, which have, in a measure, retarded the development of many of those republican states. There are also many physical causes, too, which it is unnecessary to explain, which have had a similar tendency.

Now, by the bold legislative action of a few independent spirits, increased prosperity for a people whose submission to priestly rule and exaction in times past, gave a headlong impetus to their declining fortunes and retarded progress, is now insured, and with this increasing prosperity telegraphic progress will not be slow. Soon shall we see South Atlantic Telegraphic cables, and a network of wires, extending from crowded cities, through rivers, and through virgin forests, away up and across mountain heights, where the Andes condor reigns undisturbed, and the ethereal blue and assimilative snow combine in harmony, and down to bustling cities and hamlets beyond.

It is, perhaps, unnecessary to add that the alphabet, used on the Morse instruments, has not been changed,

but slightly modified to meet the requirements of three or four additional letters in the Spanish alphabet.

Respectfully yours,
SEBASTIAN DEL H. CAROLLO.

XENIA, O., Sept. 25, 1866.

TO THE EDITOR OF THE TELEGRAPHER:

At a meeting of the operators of the Little Miami Railroad Line, held by telegraph over the line, Sunday, September 23, the following resolutions were unanimously adopted:

"Whereas, In the dispensation of divine providence, God in his greatness having caused deep affliction to fall upon our friend and brother operator, James E. Reeves, by the death of his only surviving parent, his dear and beloved mother; that in her death he has lost a kind and affectionate parent, one whose place in his heart and affections can never be filled; one who has watched him, her only son, with a mother's pride in the rapid advancement of his business pursuits, but who has now been called to that better world, leaving him alone to fight the many trials of life.

"Resolved, That we, as his friends and brother operators of this line, tender to him our heartfelt sympathy in this, his great bereavement, hoping that 'He who doeth all things well' will administer such consolation as He alone can give.

"Resolved, That we tender him the enclosed package as a slight token of our esteem and confidence, hoping that he will receive it in the same kindly spirit that prompts the offering.

"Resolved, further, That the foregoing resolutions be published in THE TELEGRAPHER and the Clermont County papers."

A purse of one hundred and one dollars was raised and sent him with the resolutions.

SOUTH AMERICAN TELEGRAPH ITEMS.

The following extracts from South American correspondence indicate that our neighbors south of the equator are forgetting, for the moment, their darling revolutionary schemes and political conspiracies and devoting their attention to telegraph prospects:

A Chilian letter says: "Railroads are being extended into new agricultural and mining districts, and telegraph lines are being put up in various parts of the republic. The project of constructing a telegraph through Peru and Chili, from Buenos Ayres to Panama, is still under consideration, with an encouraging prospect of being carried out in a short time. Several enterprising Americans here are in correspondence with New-York capitalists on the subject, and the enterprise has already assumed a definite form, and proposals have been made for commencing the work. Some time must necessarily elapse before the undertaking is fairly started, however, as the Government of Chili has not yet officially extended its assistance; but hopes are entertained of arriving at a definite conclusion on the subject in a few months. Parties are expected to arrive here by the next steamer with authority and means to push the thing through."

A Brazilian correspondent, writing from Rio Janeiro, says: "A large and enthusiastic meeting is being held at the Exchange in furtherance of the projected line of telegraph from the River Plate to Cayenne, to join with that of Collins to the United States.

"Several excellent speeches have been delivered on the subject by men of mark, and there is every probability of an address to the Government praying for the necessary concession being agreed to, and of the prayer being granted, the Government of Brazil having resolved to accept the proposals of Mr. Cayman, agent of Mr. P. McD. Collins.

"The meeting is attended by most of the influential merchants of the city, ex-ministers and deputies. It was

unanimously resolved that the Imperial Government be urged to close the contract immediately with Mr. Collins' agent on the conditions proposed by Senor Souza, Ex-Minister of Commerce."

Progress of the North Atlantic Telegraph.

[From The Manchester Examiner.]

DURING the last six months various arrangements for the immediate commencement of this important undertaking have been negotiated and completed. It is well known how strongly the North Atlantic route, via Iceland, commands itself, from the great natural advantages it possesses in the subdivision of the cable into four short and manageable sections, the longest of which does not exceed 740 miles. The North Atlantic route possesses, however, other features of interest which equally command attention—for instance, the opening of new and more direct and speedy telegraphic communication with the great circuits of Northern Europe. Mr. Holmes, the engineer of the company, has at length completed these important arrangements, which will ultimately afford advantages in connection with Indian traffic at present hardly to be realized. The telegraphic systems of the respective Governments of Denmark, Norway, Sweden, and Russia are all interested in these new and important traffic arrangements, and the necessary moneys required to erect new and independent lines through Norway, Denmark, and Sweden, to be placed in special and exclusive connection with the cables about to be immediately submerged between England and Denmark, and Denmark and Norway, by the North Atlantic Company, have been voted by the respective Governments, and these lines will be immediately carried out, so as to be in readiness to join the cables at the several landing-places already selected by those Governments. By these new arrangements Copenhagen, Christiania, Stockholm, and St. Petersburg will be placed in direct and instantaneous communication with London and the provinces, and the important trade with the Baltic ports brought into a far more independent and satisfactory condition than it is at present. The section of cable between Denmark and Norway will be working by December in this year, and that between England and Denmark by June next year. The arrangements for the erection of the new and independent land lines throughout England and Scotland in connection with the several cables are also in a forward state.

Improvements in Telegraphing.

THE English papers describe a new system of telegraphic coding, invented by Captain Bolton, which it is claimed will reduce the trouble and expense of telegraphing a hundred per cent. It appears to be a kind of telegraphic short-hand, and to be telegraphing what stenography is to ordinary writing. A strong feature in favor of the improvement is said to be its simplicity. A few minutes' explanation will enable any person versed in telegraphing to comprehend all the signals, and receive and forward all the symbols in the code. Another curious and valuable peculiarity of the system is that messages in any language that can be expressed in the English tongue can be transmitted, although the operator who forwards or the clerk who copies the dispatch may be unable to comprehend. Thus, a message can be sent in Chinese, Hindostane, Cherokee, or cipher, from one part of the world to another, the meaning of which may be intelligible only to the sender and receiver, and without the telegraphic agents understanding the meaning. What is no less valuable is the perfect accuracy claimed for this method.

It is to be hoped that our telegraph companies will investigate the merits of this improvement, and promptly give the public the benefit of it in the shape of reduced charges. The alleged capability of the new system to reduce the number of signs used in ordinary telegraphing a

hundred per cent, virtually increases the working power of the Atlantic cable and all other telegraphs to a corresponding extent. In other words, the invention, as applied to the Atlantic cable, is equal to say a hundred new cables. With two Atlantic cables in existence, and the improvements effected by Captain Bolton's system, the present tariff cannot long be maintained, and we may reasonably anticipate a general reduction in telegraphic rates that will bring telegraphing within the reach of all classes in the community.

HUMORS OF THE TELEGRAPH.

The following happened some time ago, and is an old story to many, but it is too good to be kept out of print:

An operator universally known for his joking propensities, one day found himself in a small town in Central New-York, where he had been dropped by a misconnecting train. Wishing to while away the few tedious hours that he was compelled to remain here, he, operator like, sought out the telegraph office, made the acquaintance of the operator, and entered into a conversation with him on telegraphic matters. At length he began to suggest some improvements about the office, and among other things, an improved ground connection was spoken of. The operator in charge, having had some trouble with his ground, very gladly received suggestions on this matter. The visitor told him that a pail of water placed under the table with his wire inserted therein did the work very neatly and effectually. This struck the operator as something very nice, and he at once went to work to arrange it; the traveler, however, not stopping to see how well his experiment worked. We have never heard that any one was particularly bothered with that "G"!

A well-known telegrapher one day happening into an office on the west side of the Hudson, and looking into the arrangement of the instruments, among other things spied a very lengthy adjusting spring, with a still longer string attached thereto, bringing the adjustment screw an unusual distance from the relay. Being a little curious to learn the object of this arrangement, he asked the operator in charge what benefit he derived from so long an adjusting apparatus? "Why," says he, "by means of this I am enabled to adjust a little in the morning, and it lasts all day!"

Many times have we been led to believe that he considered his morning adjustment sufficient for the remainder of the day.

This same operator upon another time was informed by a brother operator that his ground wire appeared to be broken off near the ceiling. Upon examination this proved to be the case. After having found the break it occurred to him that he had broken it several months previous in some office repairs, and neglecting to fix it had used it for all practical purposes ever since.

Another operator on the same wire while testing it one day with Albany, gave him the astounding intelligence that he got him perfectly well with his ground wire on either side of him! That ground wire must have been in a similar condition to the one above referred to, or may be a twin brother to the "Pail of Water."

A Cincinnati correspondent writes: "An unsophistical artiste" in Cleveland, this evening sent me a death message addressed "Geo. W. Bishop," giving the check "7 H. go pd." "Isn't that '7 H. 90 pd'?" I inquired. "Ha! ha! Yes." "That's good enough to go to THE TELEGRAPHER," said I again. "No, its to Geo. W. Bishop." "Aye, aye." And thus improved I send it to you.

A correspondent in Meadville writes the following "sell": "I want to avail myself of your kind offer some time ago to receive and publish any amusing 'incidents' or 'jokes' that occur among the fraternity.

"It was while a certain worthy District Director (?) was sitting idly waiting for that inevitable 'call,' that a brother disciple of Morse connected his (D. D.'s) instrument with one on the opposite side of the room, calling,

he received a prompt 'I I,' and forthwith came the following significant telegram (*i. e.*, hoax):

"OMAHA CITY, Neb., Sept. 13, 1866.

"Mr. — — —, operator — — —. We are all well— cholera not epidemic. Write soon. (signed) — — — (D. H. operator.)"

"The 'O. K.' was given; wires were rearranged. D. D. delivers message into proper hands and resumes his seat. In the meantime the 'joke' gains publicity, and our worthy brother is waited upon by a special committee of three, and invited to step outside around the corner. The 'point' is D. D. fails to see the point, and up to this time remains immovable. Does our friend of the C— District 'recognize the picture'?"

Telegraphic Improvements.

The Herald's correspondent, writing from Panama under date August 31st, says:

"While the people of the United States and England are rejoicing over the successful completion of the Atlantic cable, a word regarding the telegraphic enterprises of this country might not be without interest.

"Ex-President Murillo and his Cabinet were essentially men of quick perception; and under their kindly auspices several hundred miles of what are destined to become the connecting links of a great chain of telegraphs from Patagonia to Behring Straits were projected, and are now partially complete. One of your New-York firms has been busily engaged upon this work for a year past, and is now successfully operating about one hundred and thirty-five miles of line, while a much greater extent is under contract.

"Beginning at Bogota the first section of the improvement stretches across the mountains of Ambalema, and from thence is carried across hills and valleys, through thickets and forests, to a place called Honda—the head of steam navigation on the sluggish Magdalena. The line was built through a sparsely settled country, and in its construction the most fearful obstacles were met with, but were overcome by the superior skill of the American engineers. At one point in a spur of the towering Andes the wire reaches an altitude of over thirteen thousand feet above the level of the sea—higher, I believe, than any work of a similar nature has been carried on before. In reaching this height the line passes through three successive and distinct stages of vegetation, through the region of the cocoa, banana, and palm; through the natural home of brightly-tinted forest trees and through indigenous cedars, pines, and other evergreens, to the very edge of the barren strip separating vegetable and animal life from the region of eternal snow and ice. The various atmospheric currents which affect the wire as it passes at once through storm and calm, and heat and cold, is a fruitful theme of observation and study to the manipulators and electricians of the line. Sometimes the officials at the base of the mountain sit calmly in their offices and listen to the effect of a terrible storm of thunder and lightning that rages miles above them, and the operators cautiously adjust and readjust their magnets as the electrical current is alternately strengthened and weakened by successive flashes, high up in the temperate pias. Yet, for a line that is built through the torrid, temperate, and frigid zones, as it were, and follows only the roughest mule and footpaths across a country of such strange diversity, it is an example of perfect utility and success.

"Another section of the improvement, between Honda and Menezales, and from the latter place to Medellin, is already in the hands of the constructing engineers. After reaching Medellin it is proposed to build from thence to Buenaventura, on the Pacific coast; and sooner or later another link of the electric chain will be extended down the picturesque valley of the Magdalena, in readiness to meet the submarine cable from Florida and the West Indies. Meanwhile, another company of wealth and energy is being formed for the purpose of completing the telegraphic connection between the various republics of

the Pacific slope. Each government has made valuable concessions to the prime movers in the undertaking; and I predict an early completion of the enterprise uniting the two halves of the Western hemisphere in a bond of amity and strength."

Gamblers' Telegraph.

[From The Denver (Cal.) News, June 2.]

The building on F street, between Larimar and Holliday, formerly occupied as a gambling hell by the notorious Harrison, is being lowered to the grade. The house is now occupied as a grocery by Mr. Gehring. In making the necessary excavation for lowering the building the workmen discovered one of the signal machines used by the sporting fraternity in fleecing their unwary victims. A great many of our citizens looked at the affair yesterday. It consists of a long lever made fast at one end by a swinging joint to one of the joists upon which the floor rests; about eighteen inches from this joint there is a piece of board nailed to the top of the lever and reaching within two inches of the boards of the floor. Into the end of this board a nail is driven, through a hole in the floor, large enough to admit of its playing freely up and down; when down, the head of this nail is level with the upper surface of the floor. At the other end of the lever a string passes up through the floor and between the walls of a partition, subject in some way to the control of the hand or foot of the gambler's confederate.

The mode of operating was simply for the gambler to sit on one side of the table, with his foot on the head of the nail previously described, the pigeon to be plucked sitting on the opposite side, and the gambler's assistant behind or on one side of him, so as to see the cards in his hand. Then by a jerk of the string he could cause the nail, previously described, to lift the foot resting upon it, and by a series of this kind of taps, could accurately inform the honest sport of just what he had to play against. It is a beautiful arrangement for the purposes desired. The lever is padded where it would strike the joist below, so that in signalling not the slightest concussion or sound may be produced.

All who look at this machine must be impressed with the fact that between thieving and gambling the former is far more honorable than the latter.

Picrou, N. S., Sept. 26, 1866.

The ball last night in honor of Cyrus W. Field and the other officers engaged in laying the Atlantic and Gulf cables was a complete success, passing off without the occurrence of anything to mar the harmony, good spirits, and enjoyment that prevailed.

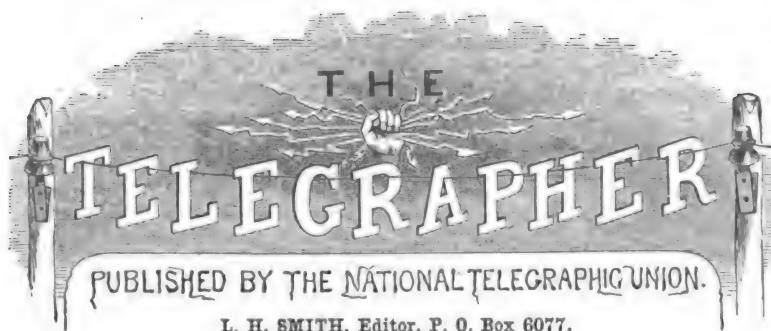
The affair took place in the large hall of the Assembly Rooms, which was very tastefully decorated with flags of all nations, and appropriate inscriptions and mottoes. The Stars and Stripes and British ensign were placed side by side about the walls, and enveloped the chandeliers hanging from the ceiling. The most notable inscription consisted of the simple words, "England and the United States," represented with two clasped hands in the center joining in a friendly grasp the names of the two greatest commercial nations on earth. This inscription is the same as was exhibited here on the occasion of the reception of the Prince of Wales by the Pictouians, and was the contribution of Major Norton, United States Consul, in honor of His Royal Highness.

Cyrus W. Field flitted through the ball-room, chatting with every one, but not joining in the dance. Of course he was the lion of the evening. The ladies dressed with great taste, though there was no extraordinary display in the toilet department.

There was no supper or speech-making, owing to the hurried manner in which the ball was got up; but the affair was marked by genuine enjoyment on the part of all present. The naval officers monopolized the ladies in nearly all the dances. The company separated about four o'clock this morning.

NAVAL AFFAIRS.

The Medway and Terrible are now coaling rapidly, and preparing for their departure. From here they will proceed to Charlottetown, and after taking Governor Dundas on board, will proceed to Cape Traverse and lay the new cable across the Straits of Northumberland.



MONDAY, OCTOBER 15. 1866.

ITS COMPOSITION.

THE more we think about the Convention just adjourned, the more are we convinced too much cannot be said in its praise.

At the head of the second long table in that pleasant but noisy parlor of the Eutaw House, sat the honored President of our Association, upon whose shoulders for two years rested the mantle of the highest office in the gift of his associates. For the third time did he sit at our head, presiding with ponderous honesty, generous alike to either side, giving every one a fair chance and his due share; but not tolerating any injustice. Few can be found who have the interest of the fraternity or association at heart more than he.

Beside him sat another, not less honored or honest, who, presiding at intervals for the second time, and for the fourth time assembled for the same purpose. Vice-President Young makes a good presiding as well as a faithful officer, and has, to our knowledge, the best interests of the Union and its members at heart. His mild face always wears a pleasant smile, and his administration of the duties of the chair reminds one of the business-like manner of doing legislative business in Congress.

The Recording Secretary, Upham, with his pleasant face and fine appearance, has set an example for future Secretaries for all time to come. For a hard, intelligent worker give us Upham, who first drew pen in behalf of the Union; from whose brain and pen came the first ideas and words which have resulted in an association, which, though small in numbers, now spans a continent, and set an example which has been seized by our brethren in Spain. In him we shall find a good President, and who will, if we mistake not, cause our association to grow strong and thrive. We expect him to inaugurate success.

Of the Corresponding Secretary we can say nothing personally, as he was not present, and too little cannot be said of the Treasurer, who, although present, was silent except during the last hours when the bills came in order, when he soon removed temptation from the path of the pickpocket.

First in the list of Delegates we find that of Collamore, of Maine, whose penetrating eye we shall never forget. Quick, active, and always on the alert, and who is capable of asking a more pointed and posing question than any one else whom we know. We trust Maine will not neglect to send him again and again.

Sitting quiet and intently watching the proceedings, we noticed Thode, of Peoria, with his artist's face. Although a novice at our yearly meetings, we feel confident nothing escaped him.

Next comes Scully, who gloriously won the sobriquet of "cosmopolitan," and will long be remembered by the "Provincials." Coming almost unknown outside his District, he won himself into favor by his legislative ability. Thompson, silent in debate, but always present and voting, and a good committee man, comes next in order. Then next the scholarly Pannell, faultless in diction and rhetoric. Next comes Bliss, ever ready and anxious to do and help along in the good work. Next comes Churchill, who is a new man at the wheel, but one who has a true eye and a steady purpose. Chandler came late to the meeting, and of a necessity figured little except in committee, where we find him working faithfully.

Maynard, of Washington, we find as polished as marble, and as clear-cut as a statue. His colleague, Dealy, evidently found himself treading upon new ground, but his vote always counting upon the right side.

Wheeler, of Boston, as Chairman of the Committee on the Constitution and By-Laws, was the right man in the right place. His colleague, Stover, led the Convention as he did that of Chicago, only more so. He had it all his own way, excepting towards the last, and carried everything by storm, and won by his daring and energy two-thirds of the members to his side. His quickness and audacity saved him several times from defeat. He was the most finished speaker present, and his clear, ringing tones sound in our ears still. His "Why, I am surprised! Mr. President," which often prefaced his remarks, always recur to us whenever we see his name, or think of those three days and nights at Baltimore. There was a general regret that Wilson, of Harrisburg, was not present, and his substitute's (Keifer) stay was too brief to enter into the deliberations of the body. McDill, of St. Josephs, made his first appearance, and won his way into favor, and performed well his part.

Buckwell, always quiet and undemonstrative, but ever sensible, adds weight to any meeting, and makes a valuable representative. Black, his colleague, although not the editor of a "one-horse paper," is nevertheless pugnacious and combative. A good speaker, of good ideas, and an acceptable presiding officer, though inclined to be peremptory.

Biggert, of Louisville, might be called the Big-un, for he represented three delegates and two Districts, and did it well. His importance told heavily against the opposition whenever he polled his three votes. We say to Louisville, Never be afraid or hesitate to send Biggert. We sincerely regret that Whipple, of Albany, took no active part in the debates. One who has always made such a good District officer could have remained silent only because of great diffidence. Zeublin, young and active, paid close attention to all that passed, and put in a helping oar whenever necessary, and being double, counted two on every vote. Kerner, ever jealous of his rights, and with courage to maintain them, and Kelty, his associate, gave promise of good legislators. Augusta may congratulate herself upon being well represented by Yeakle, who followed his good work at Chicago by more at Baltimore, and we trust will be returned to St. Louis.

McKenzie, Pickering, and Pamplin, all represented St. Louis, the latter being the most active and oftener on his feet; the former, faithful and reliable, knowing well when and how to vote. Pickering is one of those positive natures with the power and determination to do whatever he sets himself about.

Reese, of Detroit, meeting with delays, came only just in time to witness the closing scenes, much to his own and his District's regret. Flack, of Pittsburg, the youngest of them all, yet eager for work, was late at the meeting, and therefore unable to act his part so prominently as he evidently would under other circumstances. Another year will, we hope, give him a chance to signalize himself. Gentlemen, we admire you all, and have not yet ceased to speak in your praise and that of the Convention of 1866.

May the good resolutions made by each one of you last and prompt you throughout your lives. Your good works will outlive you.

TELEGRAPHIC MISCELLANEA.

OWING to the withdrawal of Keeling's advertisement, our next issue will contain but eight pages. We have now room to accommodate more advertisements, and trust our friends will forward us a page at least. Our terms are reasonable.

"AN operator at Port Hood, C. B., is hereby informed that Mr. James W. Pitfield was, a short time since, Manager of the office at New-Westminster, B. C., on the Collins Overland Telegraph Co's. lines.

THE story of "Down South," which we bring to a close in this issue, has for its chief merit the fact that it was an actual occurrence, the actors being well-known telegraphers in New-Orleans. The names of course, are fictitious. The denouement seems rather tame. A little blood or a broken head would have given it spice.

MR. KERSEY, who organized a Local District at Zanesville, Ohio, some months ago, and sent the necessary papers to join the Pittsburg District, and who has suffered two attacks for offenses not his own, desires us to say in reply to "Norvell" whose letter we publish, in No. 36: "That I vouched for him—'Norvell'—as being a gentleman, and worthy of membership, but that I will return out of my own pocket his \$2.50 and recall my recommendation since I have ascertained his true character," and adds: "We of that Local District have certainly been neglected by the Union, but I have not had the cause laid to my dishonesty by the balance of members or parties I proposed for membership. I have not received any certificate for myself yet, but found on my return here (Elizabeth, Pa.), a note from the District Treasurer, informing of dues to the amount of \$3.50, and a request that I forward immediately."

The trouble seems to be owing to the apathy or negligence of the officers of the Pittsburg District, who have neither forwarded the names nor fees of the members of the Zanesville Local District to the Treasurer of the Union. New life has been instilled into the Pittsburg District, and soon we hope justice will be done Zanesville.

THERE are evidences of a poetical turn of mind in the following telegram, sent by a newly-married man while on his wedding tour, to a friend in Montreal:

"Expect to-night a happy pair,
Bed and supper please prepare."

CHANGES, ETC.—Gerritt Smith, late Manager of the U. S. Company's Providence Office is now Acting Chief Operator East in the W. U. Company's Main Office this city.

George H. Grace, formerly "error clerk" in the American Company's Philadelphia Office has been appointed Manager of the Insulated Co's. N. Y. Office, vice Gallup.

— Havens, late Chief Operator of the last-named office, has ceased his connection with the same company.

H. B. Berry, for a long time Chief Operator and Assistant Manager of the American Company's Washington Office, and lately a Chief Operator of the caravansarie at 145 Broadway, this city, is now resting on his oars and, Micawber like, "waiting for some thing to turn up."

A SEAL AND MOTTO FOR THE N. T. U., a description of which we promised in our last, is round and 2 and 11-16 inches in diameter. The outer edge represents a cable; inside of this is the English rendering of the motto, in Morse characters; inside of this are the words National Telegraphic Union, and inside of these are twelve stars, representing the twelve original Districts. A hemisphere rests near the bottom center, on the lower edge of which are the figures 1863, the year of our organization. Perched upon the top of this hemisphere, with outstretched wings, stands an eagle, clasping in his talons forked lightning, and holding in his beak a ribbon on which is inscribed the motto: *Vestigia Nulla Restroneum*—There are no Returning Footsteps. The author of this seal and motto is Mr. Louis H. Korty, of Shreveport, La.

A GENTLEMAN holding a prominent position in the W. U. Company in this city, writes us that we, and other papers, "publish rumors as if they were facts." This refers to the statements made of the enormous telegrams sent through the cable. He adds: "I can show you that up to this date (Sept. 26), we have never taken over \$3000 gold per day for cable business, except on two days. The first day the line was open, and one day since, when a private citizen sent a long message.

"There is but one day that we have exceeded \$5000; besides the Press reports have never exceeded \$400 in one day, and Max (short for Maximilian) has never himself, or by proxy, sent the first message, and yet respectable newspapers go on prating about these things, even so far as to give individual names."

A COMBINATION-PRINTER is in successful operation on the New-York and Albany circuit.

NEW-YORK, October 1st, 1866.

BELIEVING that recognition of promptness in this office is an act of simple justice, especially in consideration of the public records of delinquencies, especial pleasure is had in naming the following persons who have not lost a single minute of time in the month just past:

W. K. Applebaugh, Thomas Allen, T. Baldwin, W. W. Burhaus, A. R. Chamberlin, C. L. Chase, Edward Clasback, —— Cromwell, W. H. Donaldson, L. A. Gallup, E. Gordon, C. D. Hoyt, W. H. Hoyt, T. J. Hewlett, A. K. Ingraham, T. Mossman, W. H. M. Merkley, A. Morrell, Jr., T. Marks, T. Miller, R. H. Morris, T. Southard, R. H. Smith, H. S. Upson, W. J. Gibson.

H. H. WARD, Manager.

THE editor of *The Nashua* (N. H.) *Telegraph* is perplexed over a "singular phenomenon. It is, no doubt, well known that the old Atlantic cable which parted one year since, has been picked up and relaid. A singular fact is said to have been brought to light at the relaying of this cable, viz., that, after the necessary apparatus for the transmission of dispatches had been attached, nothing could be accomplished until those old messages which two years since had been forced into the European end of the cable after it parted, had recorded themselves upon the tablet. Will some one well informed in such matters explain the phenomenon?"

DR. LEVERETT BRADLEY, telegraphic instrument maker, at No. 7 Exchange Place, Jersey City, was taken before Recorder Martindale, charged with threatening to take the life of Thomas Scott, expressman. Scott delivered a box to Dr. Bradley, and not receiving the express charges, attempted to carry it away, when it is alleged the accused presented a cocked pistol at his head and threatened to blow out his brains, which threat was not carried into execution, Scott dropping the box and beating a retreat. The accused was held to bail to answer at the next term of court.

The charge upon which Dr. Bradley was arrested was given by the complainant. The doctor states that he had previously prepaid the express charges, as is proven by the receipt which he holds. The deliverer of the package

demanded an additional thirty cents. This Dr. Bradley refused to pay, as the expressage to his own door had been paid. The messenger then attempted to take the box, threatening the defendant meanwhile, when the latter drew a pistol and threatened to shoot if he was attacked.

THE inauguration of submarine telegraphic communication, by means of the Atlantic cable, makes it interesting to inquire into the difference of time in the various cities of the old and new worlds. When it is twelve o'clock high noon at New-York, it is fifty-five minutes and forty-two seconds after 4 P. M. at London; fifty-seven minutes and twenty seconds after 6 P. M. at St. Petersburg; seventeen minutes and twenty-four seconds after 7 P. M. at Jerusalem; fifty-one minutes and forty-four seconds after 6 P. M. at Constantinople; forty minutes and thirty-two seconds after 4 P. M. at Madrid; thirty-one minutes and twenty seconds after 5 P. M. at Bremen; forty minutes and thirty-two seconds after 4 P. M. at Dublin; and forty-one minutes and twenty-four seconds after 6 P. M. at Florence. The difference of time between the extreme east and west points of the United States is three hours and fifty minutes. In the China Sea, between Singapore and China, it is midnight when it is noon at New-York.—*American Artisan*.

M. G. PLANTE has found that more ozone is produced in the electrolysis of water when the poles are of lead than when they are made of platinum—half as much again, indeed. The fact, he says, is difficult to explain, but he conjectures it is the result of secondary action of a layer of oxide on the electrode.

SEVERAL lines of telegraph for military purposes have been stretched from the capital and the army headquarters in Canada West to the Lower Canadian frontier.

BOOKS are shortly to be opened in this city for the sale of the stock of a new Atlantic Cable Telegraph, whose route will be from New-York to Bermuda, via Cape Charles, and thence to the Azores and Lisbon, in Portugal. The capital stock is \$10,000,000, in one hundred shares, of which 20 per cent is to be paid at the time of subscription.

REUTERS TELEGRAPH CABLE.—A dispatch from Lowestoff, of September 9, says: "The shore end of the Norderney cable was landed here to-day, and the laying of the cable commenced immediately. Weather fine, sea calm, tests perfect."

LOWESTOFF, Monday, September 10.

The submersion of the first portion of the Lowestoff Norderney cable was successfully completed to-day. The insulation of the cable has improved one hundred per cent during the laying.

A MEETING of the stockholders of the Atlantic Telegraph Cable Company has been held. It was resolved to raise the capital of the company, and it was promised that the tolls for messages should shortly be reduced.

THE Paris *Charivari* has a picture of the Atlantic Telegraph Company. The telegrapher: "What in the deuce is the meaning of this?—Dog?" a dispatch dated Dog?" "Why, you see I did not want to say Newfoundland, because that would be fifteen dollars, so I wrote Dog to save ten dollars."

IT is expected in England that the Atlantic Telegraph Company would reduce the tolls through the cable to one-half the present standard, and ultimately to one-fourth. It was also expected that they would buy up the Anglo-American Telegraph Company at the one hundred per cent profit originally agreed upon. There was great buoyancy in all cable securities, at high premiums.

TWO French peasants were discussing the Continental war, when one attempted to explain to the other the nature of the telegraph. After repeatedly failing, he was struck with a brilliant notion, and exclaimed: "Imagine that the telegraph is an immense long dog—so long

that its head is in Vienna and its tail in Paris. Well, tread on its tail which is at Paris, and it will yelp at Vienna. Do you understand now what the telegraph is like?" "Oh, yes," replied the other, "I have an idea what the telegraph must be."

THE Liverpool Chamber of Commerce have voted an address of congratulation to Captain Anderson of the Great Eastern and his coadjutors, and resolved to give them a grand banquet. Sir Stafford Northcote, President of the Board of Trade, was invited to preside, and not being able to do so before the 1st of October the banquet was fixed to take place on that day.

MR. C. S. JONES, so long connected with the telegraph office in Buffalo, has gone to Albany, to take charge of Telegraph Company's business there, as Manager of the office and Circuit Superintendent.

AN ENGLISH lord, sitting in the telegraph office in London, had his cigar lit by an electric spark from Heart's Content. It cost him two hundred guineas. Doubtful.

THE ATLANTIC cable, from the point where it leaves Valentia Island to the spot where it was landed at Heart's Content, is precisely 1866 miles in length. It is a very queer coincidence that it should have been perfected this year.—*American Artisan*.

THE RETURNS of the Atlantic Cable Company show their receipts from messages to be at the rate of £900,000 per annum.

PATENT CLAIMS.—58,105.—MAGNETO-ELECTRIC APPARATUS.—Jerome Kidder, New-York City:

I claim, 1st, The construction and arrangement of an electro-magnetic apparatus, whereby the primary current through two helices or systems of helices is thrown successively in opposite directions, or so as to develop induced currents successively in opposite directions, substantially as herein described.

2d. The arrangement of the parts of an electro-magnetic apparatus, whereby the currents from two helices or systems of helices are made to flow in succession, one immediately after the other in a uniform direction, substantially as herein set forth, such currents being either of the same character, made thus more rapid in succession, or of different degrees of tension or concentrative or diffusive influence.

3d. I claim, for adjusting the screw opposed to the vibrating spring of an electro-magnetic apparatus, the use of the arrangement as represented by v, y, operating substantially in the manner described.

58,217.—INSULATING WIRE OF HELICES.—James J. Clark, East Chester, N. Y., and Henry Splitdorf, New-York City:

We claim making helices, for electro-magnetic and magneto-electric machines, from wire insulated by passing through any powdered material, such as powdered glass, stone, sand, or paper pulp, after the wire has been passed through any sticky fluid, and before the sticky fluid becomes dry, as hereinbefore described.

The Tribune editorially says: "It is expected in England that both Mr. Glass and Mr. Canning will be knighted for the part they have taken in carrying out the Atlantic Telegraph cable enterprise; and it is suggested by the English press that Capt. Anderson, of the Great Eastern, ought also to receive some honorary mark of distinction for the services rendered by him in the good work. This is as it should be; for certainly the men who have been instrumental in completing one of the greatest undertakings of the age are worthy of all honor, and deserve more substantial rewards than any mere title implies. But what of Mr. Cyrus W. Field, to whom the enterprise is more largely indebted for its success than to any other individual? If the sovereign of Great Britain is about to confer distinction upon the Englishmen who took a leading part in that enterprise, what ought the people of the United States to do in the case of Mr. Field? Surely, there ought to be some public—some national—recognition of the invaluable services rendered by this gentleman to an enterprise so pregnant with benefits to the country, and what promises to be so useful an agent in furthering the cause of civilization. We honor and reward the soldier whose victories subserve our national interests, illustrate our greatness, and adorn our annals. Let us not be unmindful of the claims of men whose genius renders splendid service to civilization on those bloodless fields where every victory achieved is a positive gain to humanity."

We hope our fraternity will step forward and do its share of honoring this gentleman.

MARRIED.

At the residence of the bride's father, on the 8d inst., by the Rev. Dr. Van Cleef, George C. Wood, Manager of the Fort Plain N. Y., Office, to Gezena A., eldest daughter of Hon. P. J. Wariner, of the above-named place.

THE ATLANTIC CABLE.

O MAN! but little 'neath the angels, thou,
And made in God's own image! Thou hast now
Woven webs of thought from thine imaginings;
And lo! with thunder loud the welkin rings
For CYRUS FIELD, one of Thought's noblest kings.

The spark divine within thy soul was fanned
Into celestial brightness, when thou planned
To smile at ocean's breadth, and tossing waves,
And over millions' deep unhonored graves,
Erect memorial worthy of the brave.

Thou'st placed a bridle on the restless sea,
And Neptune yields to wisdom's stern decree;
The sons of Momus now forget their sneers;
Their doubting credence and their groundless fears
Give place to loud huzzas and hearty cheers.

Pan's daughters now in fond embrace are seen,
While ocean holds them fast, and rolls between
To waft their messages of peace and love.
O may this band for e'er and ever prove,
Electric with God's truth, and might, and love.

To this end, Father, we Thy blessing crave,
And dedicate to Thee this royal wave
Of Wisdom. Thou hast shined thro' human thought,
That new reflections of Thyself be caught,
And greater glory to Thy name be brought.

New-York, Sept. 12, 1866.

THE ATLANTIC CABLE.

The Newspaper Published on Board the
Great Eastern.

THE GREAT EASTERN TELEGRAPH, 1866,
and Test-Room Chronicle; containing all the latest
Home, Colonial, and Continental News; and be-
ing an Epitome of Political, Social, Ecclesiasti-
cal, Military, Naval, Legal, Artistic, Literary,
Dramatic, Commercial, Electrical, Sporting,
Geographical, Geological, Zoological, Mytholo-
gical, and General Intelligence.

[Telegrams Received through the Cable During this Week.]

HOME NEWS.

JULY 15.

SATURDAY'S NEWS.—No alteration in bank rate. Consols,
87½.

Cork steamer Osprey in collision with H. M. S. Amazon, for
Halifax, off Portland, July 6; both foundered; dozen drowned,
rest reached Torquay in boats. Amazon put helm hard star-
board.

JULY 16.

Cholera broke out at Liverpool; several deaths.
Birmingham Banking Company stopped payment on Satur-
day. Liabilities over two millions; 800 shareholders.

DARMSTADT, July 13—2 A.M.—Princess Louise of Hesse gave
birth to a princess.

Steamship Hibernian left Greencastle for Quebec, Friday, 6
A. M.

HOUSE OF LORDS, Friday.—Enfield rifles to be converted in-
to breech-loaders.

JULY 17.

Money market firm. Bank rate, 10. French bonds risen to
1 per cent. Birmingham Bank to be wound up in Chancery.
Much local but no general suffering. London prices unaf-
fected.

Ex-Chief Baron Pollock to be Baronet.

Lord Henry Lennox is now Secretary to the Admiralty.

Racoon leaves Valentia to-morrow for Queenstown.

JULY 19.

English funds risen 1 per cent. Stock exchange rate for
short loans on English securities, 507 per cent. General rate for
good paper, 9a9½ per cent.

HOUSE OF COMMONS, Monday night.—New Ministers took
their seats. Attorney-General said it was not intended to
proceed with Bankruptcy Bill this session. In reply to sev-
eral members, Gen. Peel said rifles altered to breech-loaders
would be ready for our troops before end of financial year.
Gladstone withdrew Reform bill.

Verdict of murder against the warden of Brighton for mur-
der of his wife.

Prince of Wales and Duke of Edinboro' visited Miantonom-
mah Saturday.

JULY 19—Late.

Money well supported at yesterday's improvement. Great
Western and South-Eastern Railway stock, 1½ per cent.
Money is easy on Stock Exchange. Short loans on Govern-
ment securities, 7 to 8 per cent.

Mrs. Gordon declined to prosecute Ex-Gov. Eyre.
Mr. Berkeley's ballot motion lost—197 to 119. Commission

to inquire into the condition of mercantile marine—causes of
falling off in numbers and efficiency in last twenty years. Mr.
Henly objected to Government action. Sir Stafford Northcote
objected also, but he pledged Government to institute full in-
quiry into the subject. Motion withdrawn. Parliament to be
prorogued August 4. Lord St. Leonards gave notice of motion
that should severance between church at home and colonies
take place endowments of latter should revert to donors.

One hundred to eighty against Gladiateur for Goodwood Cup.
Thirty-three to one against Dragon for Derby, 1887.

JULY 21.
Reform League announced intention to hold demonstration
in Hyde Park, notwithstanding prohibition of police.

Consols risen 1 per cent. Steady demand for United States
bonds, which have risen 1 per cent. Money plentiful on Stock
Exchange; rate for short loans Government securities, 5 to 6
per cent.

HOUSE OF COMMONS.—Mr. Creary withdrew his Elective
Franchise Education Tests Bill. Election Returning Officers
Bill for giving the votes referred to Select Committee. Debate
on second reading of Mr. Gladstone's Church Rate Bill. Mr.
Disraeli offered no objection to it, but could not pledge the
Government to oppose the third reading.

First dinner of the Cobden Club met Saturday at the Star
and Garter. Mr. Gladstone in the chair, supported by Earl
Russell.

First delivery of breech-loaders to the War Office, August 4.
An influential deputation from Glasgow to Chancellor of the
Exchequer, praying for a commission to inquire into working
of Bank Act.

National Rifle Association's annual camp gathering on Wim-
bledon Common, going off very merrily. A member of the
London Scottish won the Queen's Prize. Common illuminated
every night. Theatrical concerts and hospitable festivities
in honor of Belgian volunteers.

Grand Volunteer Review in Hyde Park to-morrow (Sat-
urday).

LONDON—Saturday Morning.—Lord Stanley declared last
night in Commons, England's policy pacific, observant, free
from all engagements.

THE WAR IN GERMANY.

JULY 14.
Gen. Cialdini is marching upon Rovigo with an army of
more than 100,000 men and 300 guns. The Austrians have
evacuated the whole territory between the Mincio and the
Adige.

JULY 15.
PARIS, July 11—Evening.—Italy has already declared to
France not to accept separate armistice. Impressions here
very warlike, chances of peace having declined. French fleet
on its way to Venice, and French Commissioners ordered to
occupy Venetia. Notice sent to headquarters of Prussians to
announce armed mediation of the Emperor.

JULY 15—Late.

Prussians have declined armistice.

JULY 17.
Prussians had successful engagement before Olmutz, yester-
day; captured six guns. Further fighting expected to-day.
Austrians withdrawing from Moldavia toward Vienna.

JULY 17—Late.

Cialdini occupies Padua, Venice, both on the line of railway
connecting Vienna and the Quadrilateral, Venice. Padua is
only 23 miles from Venice. The only Austrian troops now
having railway connection with Venice are those in Venice
itself.

Conflict between Prussians and Federals on 13th. Prussians
completely victorious. Federals evacuated Frankfort. Prus-
sians marching there. Among conditions of peace, Prussia
and Italy include the reestablishment of Hungary. Count de
Chambord's palace at Vienna is offered for sale.

JULY 19.

Prussians repeating victories and gaining adhesions from
small states. The main army within 50 miles of Vienna, have
cut the railway to Vienna. Austrian army between Prussians
and Vienna, under Archduke—160,000 men. Money and ar-
chives removed from Vienna to Comorn. Armament of French
fleet stopped.

LONDON—Thursday Morning.—The Italians occupy Borgo
Forte. Fleet left Ancona. The *Monitor* denies Emperor con-
templates armed mediation.

JULY 19—Late.

Frankfort is occupied by the Prussians, who are advancing
on Vienna. Negotiations for a three days' truce between
Prussians and Austrians have failed. All Austrian troops still
in Vienna have returned to fortresses.

ITALY.—Volunteers defeated by Austrians at Condino, 16th
inst. Prince Napoleon has gone from Paris on a special mis-
sion to headquarters of Victor Emmanuel.

JULY 20.

ZARA, July 19.—Italian fleet, consisting of iron-clad vessels
and several steamers, opened attack on the Island of Lissa on
the coast of Dalmatia. Result not known.

The *Monitor* announces Prussia accepted basis arrangement

proposed by Napoleon. Agrees to abstain from hostilities for
five days to await Austrians' reply.

JULY 21.

Prussians crossed river, marched near Holitzon, Hungary.
Austrians accepted proposal. Prussia abstains from hos-
tilities for five days, during which Austria will have to notify
acceptance of preliminaries of peace.

AMERICAN NEWS.

JULY 15.

China arrived. Money abundant; Gold, 1534; Exchange on
London, 167. Dreadful fire at Portland, half city burned, 2000
families homeless. Damage, \$10,000,000.

JULY 16.

Yellow fever raging in Vera Cruz.

JULY 19.

Maryland has decided upon excluding negro testimony from
the Courts at Smyrna. Fight between citizens and negroes
sundered. A fight between soldiers and negroes at Atlanta.
Sweeney urges Fenians to continue their preparations. Cholera
gone from New-York.

JULY 21.

Java arrived, New-York, 11th. Creoles revolted against
Spanish Government at Puerto Principe, 27th. Four Chilean
ships disembarked 2000 men to assist insurgents.

GENERAL FOREIGN NEWS.

JULY 16.

DRAMMAU, Norway.—Fire, 300 houses burned, 6000 persons
homeless. July 13.

JULY 19.

Great preparations at Cronstadt for grand reception of Capt.
Fox, bearing address from American Congress congratulating
Czar on his escape from assassination.

ATLANTIC TELEGRAPH CABLE.

JULY 21.

SATURDAY, July 21—Noon.—Ship's time: Distance from Va-
lentia, 952.3 knots; distance from Newfoundland, 716.7 knots; cable
paid out, 1074.33 knots; percentage of slack on whole
distance, 12.8.

Atlantic Cable.

COMPOSED BY C. COVELL, SIGNALMAN.

We've reeled about a bit in our time,
And of flashes seen a few,
But the greatest flash at the present time,
Is to hash the cable through.
Although small, we care not at all,
If our services prove true,
We'll sink all strife in this castle of life
While laying the cable through.

CHORUS.

Then love a shipmate as yourself,
We all have something to do;
And never sit down with fear or frown,
While laying the cable through.

Some have wives to bless their lives,
Some lovers that may prove true;
So the whole day long, with a laugh and a song,
We'll lay the cable through.
We are on watch in light and in dark,
And do what we have to do;
We're careless of clime, and hope this time
To lay the cable through.

If a fog arise in the midday skies,
And the ships are lost to view;
The horn we'll sound that's heard all round,
While laying the cable through.
The sound that's heard is meant for words,
We hope to read them true,
And do our best before we rest,
To lay the cable through.

We have all parted from our friends,
And wished them all adieu,
But hope that it will not be long
Before the cable's through.
And then we will return again
In hopes to find them true;
So here's success to all employed
In laying the cable through.

The Finding of the Old Cable—How it was
Grappled.

THE following additional details as to the manner in
which the old cable was raised are given in *The London
Times*:

From the moment of the fracture of last year's cable till last
Sunday morning, the reflecting marine galvanometer con-
nected with the shore end at Valentia has been incessantly
watched. Night and day for a whole year an electrician has
always been on duty watching the tiny ray of light through
which signals are given, and twice every day the whole length
of wire (1240 miles) has been tested for "conductivity" and
insulation. The results of these tests were almost marvelous
in their uniformity, and they showed conclusively that up to
the point of fracture the cable was as perfect as on the day on
which it left the works—apart, of course, from the improve-

ment which always takes place in a wire submerged in the cool and uniform temperature of great ocean depths.

The object of observing the ray of light was, of course, not any expectation of a message, but simply to keep an accurate record of the condition of the wire. Sometimes, indeed, wild, incoherent messages from the deep did come, but these were merely the result of magnetic storms and earth currents which deflected the galvanometer rapidly and spelt the most extraordinary words, and sometimes even sentences of nonsense, upon the graduated scale before the mirror. Suddenly, last Sunday morning, at a quarter to six, while the light was being watched by Mr. May, he observed a peculiar indication about the light, which showed at once to his experienced eye that a message was near at hand. In a few minutes afterward the unsteady flickering was changed to coherency, if we may use such a term, and at once the cable began to speak.

The messages which have already appeared in our columns came with a distinctness and precision even greater than those of the cable laid this year. No repetition of a word or letter was necessary, and a few sentences of warm congratulations were at once sent back, and as quickly responded to from the Great Eastern by Mr. Canning. Both the shore ends of the last year's cable and that laid this year being in the little shanty at Foilhommerum, a message of the good news was at once sent through to Heart's Content, and a reply wishing every good fortune to the rest of the enterprise was sent back to Foilhommerum and transmitted to the Great Eastern in the center of the Atlantic within a quarter of an hour. So also with the messages announcing to the Directors in London that the cable had been raised. These, though they can scarcely be said to have left Ireland before 7 o'clock, were delivered in the metropolis before nine, and return messages were sent back to the Great Eastern before mid-day.

Now as to raising the cable itself. If any of our readers can imagine what the difficulty would be of picking up a little rope in Cheapeide from the top of St. Paul's, they will be able to form a faint notion of the difficulty of lifting the wire lost last year in three miles' depth of water and in the middle of the Atlantic. Apparently, however, the ships, fitted with proper apparatus, found no more difficulty in grappling the cable than one might experience in raising night lines for eels. They all caught it, and caught it almost when and where they wanted. The weather was very rough, but, nevertheless, the Medway, which was the first on the ground, succeeded in catching it, raising it partly, and buoying it. In the night, however, while a heavy sea was running, the buoy ropes gave way, and the cable went to the bottom again. It must be remembered that, from repeated soundings taken for the purposes of the telegraph, no ocean bed is so well known to us as the bottom of the Atlantic. When the cable was grappled for, it was covered with a soil composed literally of minute shells of the *diatomaceæ* tribe, so minute, in fact, as to be only visible under a microscope, and so fine in their organization as to prove that not the slightest motion can exist at those depths, for otherwise their delicate formation would be destroyed. On these the cable has lain harmlessly as on a bed of sand, and the grapnels, as we have said, at once caught it. The Great Eastern and the Medway did not arrive on the searching-ground till the 12th of the month, and, after preliminary arrangements had been made for working in concert, the Great Eastern, on the evening of the 15th, caught and raised the cable more than 500 fathoms. In the act of buoying it, the buoy rope slipped, and it was again lost. On the second day she caught it again, and this time brought it to the surface. In the act of bringing it over the bows the grapnel surged, and the wire again plunged down to its resting-place, three miles beneath the ships. Once more, within two days, it was raised by the Great Eastern, while the Albany, to the west, caught and broke it, and all the work had to be begun again. On the 26th the Medway caught it and brought it up 1000 fathoms, when the sea being rough, and the strain on the grapnel sudden and violent from the pitching of the vessel, the rope broke. On the evening of the same day, however, the Albany caught it again and brought it to the surface, and the Great Eastern, "to make assurance doubly sure," got two miles of it on board and securely buoyed what was outside the vessel. The work of making the splice at once commenced, but not where the wire was fastened to the buoy. The Great Eastern, on the contrary, under-ran the wire to a considerable distance to the east, in order to get rid of the tangle in which the different buoy and grapnel ropes must have involved its western extremity. After this necessary process some eighty miles of the wire were abandoned. The Great Eastern has now (Wednesday) about four more days' steaming to bring her safely into Heart's Content.

Already she has passed the deepest water on her route; in fact the very deepest water she can encounter was that from which she has raised the cable of last year. All fear, therefore, as to the safety of the line may be considered at an end, and by Sunday next, at the latest, the shareholders will be in possession of two perfect lines. How much they may be congratulated on this may be guessed from the fact that their present line, which is steadily increasing in its returns, is already earning money at the rate of £200,000 a year. If there be any one individual to whom more than another the chief credit of the enterprise

belongs, it is certainly Mr. Glass. On him have mainly fallen the labor and the loss, and to him is due the honor of success.

DISTRICT PROCEEDINGS.

PHILADELPHIA DISTRICT.—Regular meeting, Oct. 4. Minutes of the last meeting approved.

The Director urged strict compliance with all obligations, pledging the Union in return. The delegates to Baltimore made a lengthy and interesting report of their mission. Report accepted.

Notice was given that *decided action* would be taken with delinquent members at the next regular meeting.

The local dues of non-resident members were reduced to ten cents per month.

A vote of thanks was passed for the able and faithful manner in which our delegates represented the District at the Convention.

Messrs. Snyder and Greene were appointed a committee to draft resolutions of thanks to the Baltimore District for the attentions shown our delegates.

This District begins to take a deeper interest in the Union.

WASHINGTON DISTRICT.—Special meeting, September 25th.

Report of Mr. Dealy, a delegate to Baltimore Convention, received and laid on the table until next regular meeting.

J. H. Townshend, of the W. U. Washington Office, was elected a member of the Union.

Wm. L. Ives, a regular member of this District, having left the business, was elected to honorary membership.

Mr. W. C. Hall in the chair, Mr. Maynard stated that having been elected Corresponding Secretary of the Union, it became necessary that he should tender his resignation as District Director. Resignation accepted, and Messrs. Young, Ludwig, Marean, and Findley were nominated as candidates for the office.

Mr. Fenton moved that the District make arrangements for giving a ball. Mr. Maynard opposed the motion, and upon being put to vote it was lost.

Upon motion of Mr. Young a committee was appointed to wait upon Prof. C. G. Page to ascertain if he would deliver a lecture before the District.

The District Director was authorized to purchase a bound copy of the second volume of *THE TELEGRAPHER* for the use of the District. Adjourned.

NEW-YORK DISTRICT.—Regular meeting, Oct 2d. Minutes of the previous meeting approved.

The reports of the retiring Director and Treasurer were not forthcoming.

The proposition of Mr. Kirchner by Mr. Collins for membership was referred to the Local Director.

Report of the Ball Committee read and referred to an auditing committee composed of the following-named gentlemen: Messrs. W. H. H. Clarke, Pannell and Scully, with instructions to report in full at next meeting.

Report of delegates was read and referred to a committee composed of the following-named gentlemen: Messrs. Smith, Clarke and Dennis, with instructions to report at the next meeting.

By Mr. Smith: *Resolved*, That Clause 4, Art. 1 of the District By-Laws be so amended as to make the fine of twenty-five cents payable monthly instead of for non-attendance at meetings. Referred to Committee on Delegate's Report.

On motion of Mr. Smith the minor officers of the District and the Director's Council were directed to assist the Director in notifying all members over six months in arrears of their delinquencies.

On motion of Mr. Smith, Messrs. Clarke, Dennis and Scully were appointed a committee to investigate the affairs and audit the accounts of the retiring Director.

Mr. Smith moved a committee of five be appointed to canvass the District and ascertain the views of members and telegraphers in general, as to whether we should give a ball or a course of lectures this winter, with power to act, and report at next meeting. Carried.

On motion of Mr. Redding, the Director was made one of the last-named committee.

Adjourned.

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THE TELEGRAPHER is published in New-York, on the first and fifteenth of every month, and besides matters of associate interest, is devoted to the interests of telegraphers all over the world, and will contain telegraphic information from all parts of the globe.

It is not confined to any one policy, but will seek to correct abuses, give honor and praise wherever and whenever due, and endeavor to elevate the standard of operators, both morally and scientifically.

It will not support any one person or corporation, but will aim to treat all alike, censuring either or both, when merited, and praising alike when praise is won.

Its columns will not be open to any one for personal abuse, nor for personal profit at the expense of others, nor will it contain anything that the most fastidious would not read.

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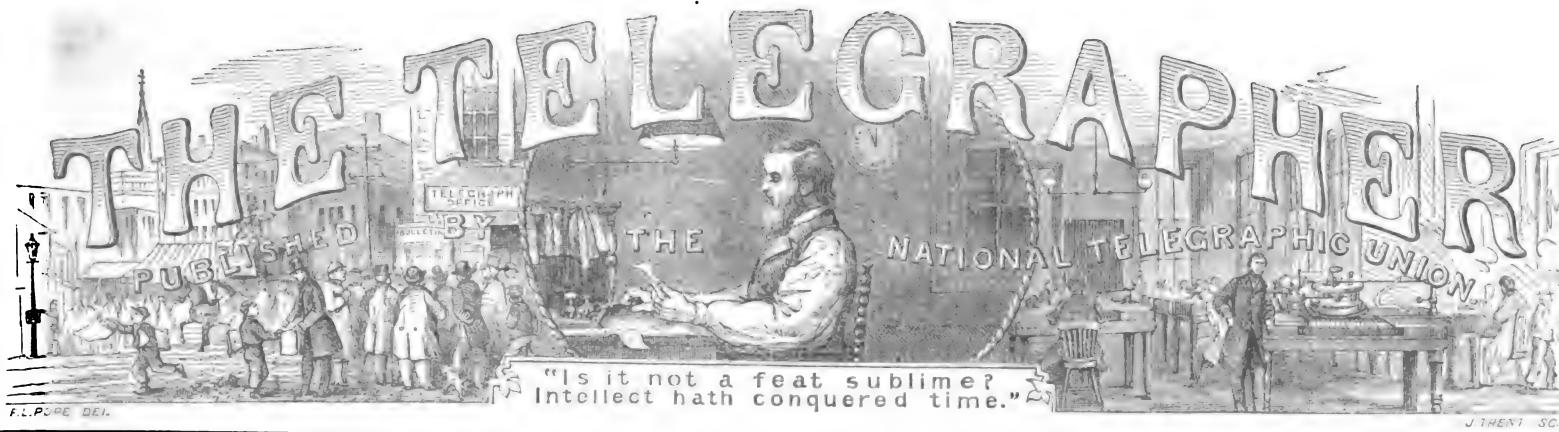
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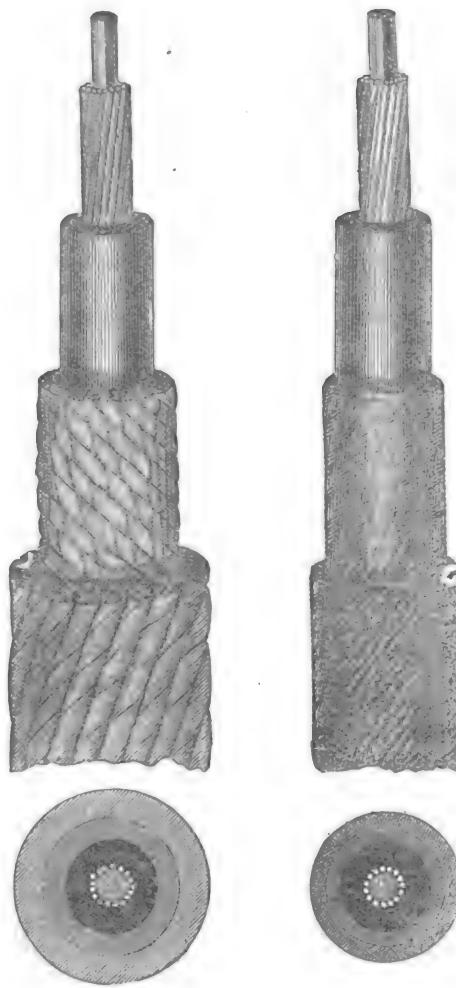
New-York, Thursday, November 1, 1866.

No. 39.

SEVEN MORE SUB-OCEANIC TELEGRAPH CABLES PROJECTED.

SINCE the last issue of *The Journal of Mining* announcement has been made of the successful junction of the lost cable of 1865 with Heart's Content—so that two great telegraphic nerves now unite Great Britain to America. No excitement followed that announcement, because we suppose the public mind has been too much agitated by politics to care about anything else, but we believe the importance of this success is none the less appreciated, as well by those who in consequence thereof will save money in the reduced rates charged for messages, as by that larger class who gain by reading in their newspapers every morning at breakfast a larger modicum of European telegraphic news. Hence we have thought that some mention of other deep-sea cable projects will prove acceptable to our readers. So far as we can ascertain there are no less than seven of them. *First* is that of the American Atlantic Cable Telegraph Company; capital, \$10,000,000, in shares of \$100 each; President W. S. Worl; office 37 New street and 38 Broad street. The route proposed is from Cape Charles (opposite Fortress Monroe) to the Bermudas, 677 miles; thence to the Azores, 1800; and thence to Lisbon in Portugal, 750 miles. The advantages claimed by Mr. Worl, the projector, for this route are: That the cable can be laid in three sections, so that in case of accident to one section the other two would remain intact; that shipping stations at the Azores and Bermuda would be established, where masters of vessels could be placed in communication with their owners; that the business of these stations alone would pay handsomely; and that such stations would enable the line to be worked with four-fold the rapidity of a single cable. The company have not yet decided as to the particular class of cable they will lay down; but we should not be surprised if one of the Bishop deep-sea cables were adopted. We therefore illustrated them in the last issue of *The Journal of Mining*, and will now simply say that they are very strong and pliable—the inner covering of the conductors being of gutta-percha and the outside coverings of tarred canvas in one case and hempen material in the other. It is settled, however, that the Bishop Gutta-Percha Company will manufacture the cable, whatever the kind decided upon. *Second*. The Ocean Telegraph Company (limited) of England; capital, £600,000, in shares of £20 each, with power to increase—of which Thomas Allen, electrician and Engineer, is the promoter. The route proposed is from Falmouth, England, 1240 miles to the Azores, and thence about the same distance to Halifax, Nova Scotia. The cable for this line (invented by Mr. Allen) is already contracted for, and being made, is a copper wire conductor, surrounded by small steel wires (instead of a steel wire surrounded by small copper wires as in Mr. Bishop's cable), the whole enveloped in gutta-percha and covered with tarred canvas. The new cable is five-eighths of an inch diameter and will weigh in the ship 9½ cwt. per knot. *Third*. The North

American Telegraph Company (limited). This is another English company. The route proposed is from Scotland to the Faroe Islands, 250 miles; thence to Iceland, 240; to east coast of Greenland, 748; to Labrador, 507; to Canada, 210. There will be two cables, sixty miles apart, laid by this company the whole submarine distance. It is stated that the water in mid-ocean is very deep, hence danger from icebergs will only be encountered near shore. It is calculated that messages will be sent by this line at half a crown (say 90 cents in currency) per word.



See Description in last Number.

Fourth. The Western Union Company of America; what is generally known as the Russo-American line. This company's cable is to be laid from Russian America to Asiatic Russia (across Behrings Straits), via some small islands about half way between the two continents. The land lines are and have for two years been in process of erection. Already it has been erected for 700 miles north of New-Westminster, British Columbia, and by the end of this year 800 miles more will be done. In

Asiatic-Russia the line is also being pushed with commendable energy. The American, Russian and British Governments lend every facility to those engaged in this great enterprise, and all materiel for the company is everywhere admitted duty free. *Fifth*. A French line, via Lisbon, Madeira, Canary Isles, Cape Verde Isles (with branch to the Senegal river in Africa), across the Atlantic Ocean to Cape San Roque in Brazil, and thence to Cayenne in French Guiana, is also on the tapis. From Cape San Roque land lines will doubtless run to Rio Janeiro, and to all parts of South America. *Sixth*. International Ocean Telegraph Company—projected by the renowned Major-General William F. ("Baldy") Smith—office 41 Wall street. The line has just received a concession from the Spanish Government. The route for this cable is from the mainland of Florida, via the islands of Sandy Key and Key West, to Cuba—the distance between the two latter being only 87 miles; thence to St. Domingo, thence to Porto Rico. Also from Cuba to Jamaica, and thence to the Isthmus of Panama. The organization of this company is: General Wm. F. Smith, President; Alexander Hamilton, Jr., Vice-President; Alfred Pell, Jr., Secretary; M. L. Delafield, Treasurer; Directors, Alexander Hamilton, Cambridge Livingston, Charles Knap, O. K. King, James A. Scrymser, Alfred Pell, Jr., Maturin L. Delafield, W. F. Smith, and Wm. T. Blodgett.

While speaking of this cable it may be well to mention that under the auspices of Ex-President Murillo, of Colombia, several hundred miles of telegraph wires were projected and are now partially completed across the lofty Andes—at one point in the crossing of which the wires will be 13,000 feet above sea level! A grand chain of telegraphs, running from Patagonia up on both sides of South America to Colombia, and from Behrings Straits down through Russian America, British America, Washington Territory, Oregon, California, Mexico, and the Central American Republics, will doubtless connect with this line as well as with the Russo-American line. *Seventh*. A line from New-Zealand and Australia, running from island to island of the Sunda Group, to Singapore, thence connecting with the line of telegraph running from the East Indies to England. When the Russo-American line is completed, a land branch through China and Cochin-China to Singapore will also probably be constructed. Several of these companies were organized, or partly so, some time ago, but the successful laying and working of the two great Atlantic Telegraph cables has given them an impetus never before experienced. The high prices charged for the transmission of messages also has much to do with the organization of the others. Proven, as they now are, secure and very profitable undertakings, we shall expect, ere many years have elapsed, to learn that the ocean-beds are seamed with scores of these wonderful transmitters of thought and intelligence. And may we not hope that as the various empires become more closely united by these cables, the nations will be even more closely knit together, until the whole earth becomes one happy Arcadia, where liberty shall sit crowned with the blessings of all tongues, and

exercise her benignant sway over all peoples?—*Mining Journal.*

THE BROOKS PATENT INSULATOR.

In response to our inquiry for information about the Brooks Insulator, we have received the very full affidavits as to its merits given below by experienced telegraphists. We also print in another column a letter upon the same subject. Both articles were furnished us by different parties, each without the knowledge of the other.

This subject of insulation, we hope, will be taken hold of by those most interested in its success—the operators—and have it proved to the satisfaction of telegraph corporations that it is their true policy, not only for their own pockets and satisfying the demands of the public, but common humanity towards their operators, to find out and use the best known insulation.

We print these testimonials, not from any regard or friendship for the inventor—for, although we have long known him by name, we are but slightly acquainted with him—but to help the work along to the end to do our mite towards securing the best insulation, and because we believe, from the assurance given us by disinterested parties, and by our own tests made recently, these insulators to be the best now in use.

At first glance their price would seem to be against them, but when the ease and rapidity of putting them up is taken into consideration, saving time of gangs of men, it will be observed the expense does not exceed that of others.

The manufacturers are now supplying the New-York, London and Newfoundland Company with several thousands, secured in brackets made purposely for this kind of insulator, to be used on the old and new lines of that company.

If any one can name or state an objection to these insulators we hope he will not hesitate one moment in giving in his testimony.

PHILADELPHIA, Oct. 1st, 1866.

D. BROOKS, Esq.:—*Dear Sir:*—I have received interrogatories, numbered from one to fourteen inclusive, relating to insulation, etc., etc., etc.

Believing that L. S. Jones, formerly Chief Operator United States Office, Philadelphia, now Chief Operator at night in Western Union Office, Philadelphia, to be most familiar with all the wires, I have handed the questions to him for reply.

I believe Mr. Jones competent to answer the questions, and that he does so honestly and conscientiously.

Yours respectfully, J. MERRIMAN.

1st Interrogatory.—Are you familiar with the wire known as "No. 4 West" between Philadelphia and Pittsburg? What is its length?

Ans. Yes; I am familiar with No. 4 wire West. It is about three hundred and sixty miles in length.

2d. How is it insulated?

Ans. Brooks' Patent Insulator.

3d. Have you worked or seen No. 4 wire work through very wet and humid weather, and can it be worked to its full capacity at such times (I mean by capacity the condition of that wire, or any other more favorable circumstances; the weather being clear, and other conditions favoring the good working of a line)?

Ans. I have. I believe it could be worked to its full capacity.

4th. Have you ever seen the weather so humid or moist as to prevent the working of that line to its full capacity? If not to its full capacity, please state what percentage or proportion of its full capacity it could be worked at such times.

Ans. I have never yet seen the day, however bad, that No. 4 could not be worked to its full capacity. There being no actual interruption on the line, I mean, that good operators could do fully as much business in bad weather as they could in fair weather, under favorable circumstances.

5th. What kind of insulation do you consider the best to work a long circuit, putting the "Brooks Patent" out of the question?

Ans. I consider the Bracket and Glass the best.

6th. Do you know of any wires on which such insulation is used, and of what length are they? Which do you consider the best of these wires?

Ans. The United States Line wires from Philadelphia to Pittsburg are so insulated. Distance about three hundred and twenty miles. No. 3. now No. 10 West.

7th. Have you worked said wire, and how long? Have you ever seen the weather so humid or moist as to prevent working of that wire to its full capacity? If not to its full capacity, please state what percentage or proportion of its full capacity it could be worked at such times.

Ans. I have; about three years. I have seen it affected solely by moistness and dampness, so much that it could not be worked for hours from Philadelphia to Pittsburg.

8th. If a repeater were placed at a central and intermediate point, at what speed do you think said wire could be worked in such weather?

Ans. With a repeater midway between Philadelphia and Pittsburg I think the wire could have been worked at about half speed.

9th. Do you think additional repeaters placed on said wire would increase its capacity; if so, how much?

Ans. I think not. Not on that circuit.

10th. What number of insulators per mile on No. 4 wire West?

Ans. About fifty per mile.

11th. What number per mile on the wire referred to in your reply to the 6th interrogatory?

Ans. About forty per mile.

12th. What percentage of insulators has No. 4 wire over the other?

Ans. About forty per cent.

13th. Have you ever noticed No. 4 wire affected by the writing from another wire, or the wire on the other end of the cross arm, such results known as "induction, sympathy, or cross currents"? If so, to what extent? I refer now to the most unfavorable weather.

Ans. I have not; unless there was an actual metallic cross.

14th. Have you ever seen the time, during a very wet day, but what there was more or less "cross current or sympathy" on those wires on the same poles, insulated as per your reply to the 5th and 6th interrogatory?

Ans. During wet weather there is always more or less sympathy between all of them.

I have examined the answers to those questions carefully, particularly those referring to No. 4 wire and its insulation, and, after full consideration, I believe those answers to be truthfully and correctly given, so far as respects its capacities in very unfavorable weather.

I make this statement from my knowledge in working that wire, as chief operator on the western side since the line was finished—about three years since.

Philadelphia, Sept. 28th, 1866. F. M. SMITH.

I have examined the questions and answers thereto by Mr. Jones, and can certify to their correctness, unless it is answer to question 7th. I don't distinctly remember the times when No. 10 was so affected that it could not be worked at all, though Mr. Jones, as he was chief operator, and had better opportunity of observation, says he distinctly remembers such times, though of not long duration.

The most common way of getting over the difficulty was to put in a repeater and open such other wires on the same poles as interfered through "sympathy or induction," as it is commonly called. The others are the answers I would give to those questions.

JAMES PARTRICK.

QUESTIONS ANSWERED BY ROBERT J. BLACK.

1st. How long have you worked or operated the printing instrument?

Ans. About twelve years.

2d. Can you work a "Morse instrument"?

Ans. I can.

3d. Are you familiar with the working of the wire known as No. 4 West from Philadelphia to Pittsburg?

Ans. I have had my attention drawn to its condition and its working under very unfavorable circumstances; that is, during the prevalence of rain and moisture, and at times when all other wires were most affected by the weather.

4th. Do you think you could work the combination instrument on that wire during the most unfavorable weather; if so, at what speed in comparison with the working of that instrument on a good wire under the most favorable circumstances?

Ans. I do; and I believe the instrument could have been worked at such most unfavorable times at its full speed and capacity. I mean by this, the full speed of that instrument under favorable circumstances of weather.

(To be continued.)

Another Atlantic Telegraph.

[From The Engineer.]

THE North Atlantic Telegraph Company (limited) has been incorporated to effect telegraphic communication between England and America by means of several short lengths of cable between Scotland, the Faroe Islands, Iceland, Greenland, and Labrador, or Belle Isle. The prospectus announces that substantial contractors agree to complete the whole of the works, with duplicate cables, for £1,872,000. This sum includes the following items:

1. The construction of land lines from London to Hull, and thence to the north of Scotland, with branches to the principal towns of England and Scotland, for the through direct transmission of inter-continental messages. 2. Two cables, sixty miles apart, from Scotland to the Faroe Islands, 250 miles. 3. Land lines in the Faroe Islands. 4. Two cables, sixty miles apart, from Faroe to Iceland (Beru Fiord), 240 miles. 5. Land lines in Iceland. 6. Two cables, sixty miles apart, from Iceland to the east coast of Greenland, 743 miles. 7. Two cables, sixty miles apart, from Greenland to Labrador, 507 miles. 8. Labrador to Canada (land line), or extra lengths of submarine cables from Greenland to Belle Isle, 210 miles—total length of the two cables from Scotland to America, 3900 miles. 9. Cables between England and the Continent, via Denmark, 400 miles. Total length of cables, 4300 miles; add for spare cable, 1150 miles; total length of land lines, 1272 miles. Total mileage of duplicate cables and land lines, 6722 miles, the whole being included in the contract.

The route has been thoroughly and efficiently surveyed throughout, the soundings have been published by the Admiralty, and the surveys of the overland lengths by the Royal Geographical Society. Thurso is the selected point of departure in Scotland, whence the first length of cable, 250 miles long, will be laid to the Faroe Isles. From the Faroe Isles cables will be laid to Beru Fiord, in Iceland, a distance of 240 miles. The first overland portion of the route is then encountered, reaching from Beru Fiord on the east to Faxe Bay on the west coast of Iceland. The exploring party report that across this island there are four available routes for the telegraph, the one examined being 310 miles in length; a second, via Sprengislandr, 250 miles; a third, north of Vatna Jokull, 210 miles; and a fourth, along the south shore of Iceland, 260 miles long. The route they recommend runs from Beru Fiord to Modrudalr, in lat. $65^{\circ} 17'$ N., long. $16^{\circ} W.$. Thence it strikes west for 45 miles to Isholl, a farm on the Skialfanda river. The west bank of this stream is followed to nearly its source, and the center of Iceland crossed in a southwesterly direction till the head-waters of the Thorsa are reached. The left bank of this stream is followed to $64^{\circ} 20'$, where the river is crossed, and the route turns to the west to the Hvita and the Geysers. On nearly fifty miles of this route there is little or no grass, but depots of hay can be established.

lished for the maintenance of the horses necessary to assist in keeping the lines in repair. The price of labor varies on the island from 1s. 2d., to 2s. 8d. per day according to the season. Reykjavik, on the west coast of Iceland, being thus reached, another length of cable, 743 miles long, is to be laid to Julianehaab, on the western coast of Greenland. If a wire could be carried overland across the south of Greenland, a considerable portion of this length of cable might be saved, but the idea was given up as impracticable. For this reason no land wires will be erected in Greenland at all. The cable will be carried round Cape Farewell to Julianehaab, whence another cable, 540 miles long, will be laid directly to the American shore at Hamilton's Inlet, or perhaps a slightly longer line to Belle Isle, at the north of Newfoundland. The water in mid-ocean over this last portion of the route is fortunately very deep, so that the danger from floating ice will only have to be encountered close in shore.

Correspondence.

PHILADELPHIA, October 9th, 1866.

TO THE EDITOR OF THE TELEGRAPHER:

IN NO. 37 you request information respecting the Brooks Insulator, and desire to know what has been the result of recent experiments upon this invention. I have obtained the testimony of responsible parties who, from long experience and a thorough knowledge of their business, are best qualified to judge, and their views, together with my own observations, assure me that these insulators have not been over-praised.

There is a line now in operation between Philadelphia and Corry, Pa., a distance of over four hundred miles, insulated by the Brooks patent. This wire works, with but a very trifling escape, throughout the most protracted rains. There has never been a necessity for either *intermediate* or increased end batteries, and a repeater has never been thought of in connection with the working of this line. The same can be said of the wires extending from Philadelphia to Pittsburgh, on which the Brooks Insulator is used. Recent experiments upon this circuit have verified the statement made by a prominent House operator, viz., that the Combination Instrument would work at its full speed over seven hundred miles of wire insulated by the Brooks patent (from Philadelphia to Pittsburgh and return) during the most unfavorable weather.

These statements may appear exaggerated, but I assure you they are substantiated by the evidence of honest and reliable men who have daily experience upon those wires. I am not employed by that company, and have but a limited personal acquaintance with Mr. Brooks; therefore my opinion is not biased by either business or social considerations.

It is well known that glass, after having been exposed to rain or a very moist atmosphere, will collect upon its surface a thin film of water; but the composition used in the Brooks Insulator is of such a nature that moisture adheres to it in distinctly separated drops, and thus preserves a perfect insulation.

This is by no means the only point of superiority over those in common use. There are many others of equal importance, which I will furnish in a future letter, when it is purposed to give a thorough description of this insulator, together with the various substances composing its different parts.

I cannot close without making some reference to its form, which is certainly best adapted to all requirements. It constitutes the safest means of suspending wires, besides being protected from missiles which so frequently break the ordinary kind.

Mr. Brooks is a man of long experience, and possesses a thorough knowledge of the telegraphic business. Much time and study have been devoted by him in bringing this invention to its present perfect condition, and the success which has crowned his persevering efforts will be appreciated as a public good.

PROGRESS.

BANGOR, October 7th, 1866.

TO THE EDITOR OF THE TELEGRAPHER:

CONSIDERABLE has been said and written about the "Champion Telegraphic Club of New-York City and New-England," the ostensible object of which is "to improve the art of 'sending.'" The question naturally arises, Is the method adopted likely to accomplish this object? Let us see.

Two or three trials have been had; one or two operators have succeeded in sending forty-two or three words a minute. Suppose they had sent a hundred, what good? Is the art improved? Can business be done at that speed? But few of the great body of operators could read, still less copy it, even when the words sent were perfectly familiar to every operator. Do the telegraph companies or the public, who are most directly interested, wish their business done in a manner so liable to mistakes? Certainly not.

To my mind it appears that the effect of this club will be, instead of "improving" the business, to work a positive injury. Its effect upon the operators new in the business, and those likely to enter it, is to give an idea that the height of ambition in telegraphing is to be able to send thirty or forty words a minute. There are too many of this kind of men on the lines now, whose only object seems to be to send so (as the phrase goes) as to *stick* somebody, sending the most important business without regard to the condition of the wires, or whether the receiving operator is able to copy it at that rate or not.

Is this an object to be encouraged? Ask the telegraph companies when they foot up the columns of "claims for damages." If we are honestly trying to improve the art, let us form clubs to learn operators to be prompt, careful, and gentlemanly, sending in such a manner and at such a rate of speed as will occasion less unpleasant talk over the lines—and therein lies a great chance for improvement, as every operator of experience knows that (especially in hard weather) as much time is wasted in talk as is spent in doing business.

If the time ever comes when operators, as a class, shall work lines according to the condition they are in; when they shall feel that it is more important that messages should be *correctly received than rapidly sent*; when they use each other over the wires as they would face to face, and when they shall *all* know as much about the business as they *think* they do, we may safely conclude that the millennium of telegraphing has arrived.

I know, Mr. Editor, that I lay myself liable to a charge of "fogyism" for advancing such ideas as these in this fast age, but they are conclusions I am willing to stand or fall by.

CYCLOPS.

DISTRICT PROCEEDINGS.

BOSTON DISTRICT.—Regular meeting held October 3d. Local Director Pope reported favorably upon application of W. G. Kettels, of Fall River, for membership, who was unanimously elected.

Mr. Bliss, of Chicago, followed Mr. Upham in remarks upon the Convention and the Union matters in the West. (Enthusiastic applause.)

Mr. Stover made a detailed report of the proceedings of the Convention and of the action of our delegates.

Mr. Wheeler followed briefly upon the same subject.

Messrs. Upham and Brown followed upon Union matters.

Messrs. Stover, Brown, and Davin were elected correspondents for THE TELEGRAPHER.

By Mr. Brown:

"Resolved, That the thanks of this District are due and are hereby tendered to our representatives in the late Convention at Baltimore for the signal ability with which they have advocated our interests and those of the Union at large."

"Resolved, That we view with great gratification the election of one of ourselves to the highly honorable and responsible office of President of the National Telegraphic

Union; that we recognize the fitness of such selection, inasmuch as it has fallen upon a gentleman who not only is eminently qualified to head us with honor to himself and to us, but who is the father of our association also, and as such peculiarly entitled to the compliment that has been paid him; and, finally, that we beg leave to congratulate him upon his advancement.

"Resolved, That the thanks of the Boston District are hereby tendered to the members of the Baltimore District; to Messrs. Thompson and Pannell, of New-York; to Mr. Hills, of Baltimore, and to Mr. Maynard, of Washington, for their kind attention and generous hospitality to its delegates to the recent Convention."

Unanimously adopted.

Adjourned 10.45 P. M.

ALBANY DISTRICT.—Special meeting October 10th.

The Director announced his election as Treasurer of the Union, and tendered his resignation of the Directorship, which was accepted.

A resolution of thanks to Mr. Whipple, offered by Mr. Lawrence, was unanimously adopted.

Messrs. Waterbury and Marvin appointed a committee to investigate the application of T. E. McAllister, of Chatham, N. Y., for membership.

The Director announced that Mr. C. W. Northrop, of Rhinebeck, N. Y., was out of a situation.

A letter was read from Mr. Thomas Stewart, asking the nature of the charges preferred against him.

Mr. S. C. Rice was nominated for the office of District Director, and received 16 out of 17 votes cast. Mr. Rice returned thanks for the honor, and expressed the hope that he would give satisfaction.

Mr. S. E. Mayo tendered his resignation of membership on account of leaving the profession. An honorable withdrawal granted him.

Mr. Lawrence offered a resolution to the effect that the Utica District is virtually dissolved, and asked that it be officially closed and its members assigned to the nearest District. Referred to the Executive Committee.

CORRY DISTRICT.—Regular meeting Oct. 3d. Nothing done except the election of Messrs. J. K. Vansyckel and J. J. Hendricks members.

MAINE DISTRICT.—Regular meeting. Mr. Bliss having resigned the Directorship, Mr. C. H. Sawyer, of Portland, was unanimously elected to the vacancy.

Mr. C. D. Livermore, of Lewiston, was elected District Secretary and Treasurer. Adjourned.

WASHINGTON DISTRICT.—Regular meeting, October 6th. Minutes of last meeting approved.

Report of Mr. Dealy, delegate to Convention, again taken up. Read and laid over till next regular meeting. After which Mr. Sarvis offered the following resolution, which was adopted unanimously:

"Resolved, That the thanks of the Washington District be and are hereby tendered to the Baltimore District for the courtesy and hospitality extended to our delegates to the annual Convention."

"Resolved, That a copy of this resolution be sent to the Baltimore District, and to THE TELEGRAPHER for publication."

A committee, consisting of Messrs. Moreau, Hall, and the District Director, was appointed to revise the District By-laws, and at nine P. M. adjourned.

MEADVILLE DISTRICT.—Regular meeting, October 1. Minutes of last meeting approved. District Treasurer's report accepted.

Rules were suspended, and the following-named persons were elected members: P. C. Havens, E. D. Slade, Robert Spratt, L. M. Harris, received by transfer from the Washington, and H. Chaffee from the Corry District. The last-named gentleman was elected Local Director for Jamestown.

Committee on Subscriptions for THE TELEGRAPHER reported one subscriber. Committee ordered continued. It was

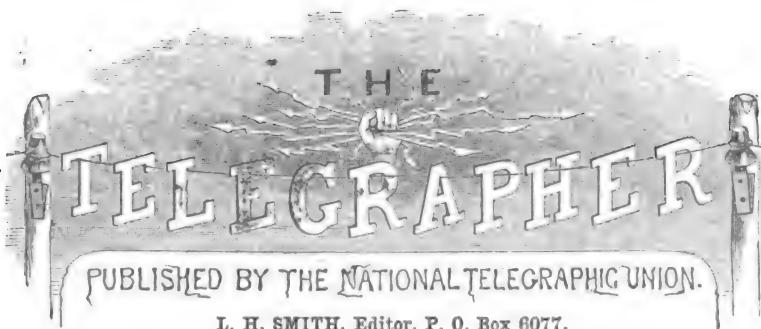
"Resolved, That we, the members of the Meadville District, do pledge ourselves to subscribe for THE TELEGRAPHER, and to use our undivided efforts to secure subscriptions from others."

A motion was carried to adopt the By-laws of the New-York District, with such amendments as the majority of the members may deem proper to make.

Adjourned.

CALIFORNIA DISTRICT.—Regular meeting, September 9. Minutes of the previous meeting approved. District Treasurer's report accepted.

A resolution was passed declaring the following-named members delinquents and suspended from all relations with the District: George Sawyer and E. A. Whittlesey. Adjourned.



THURSDAY, NOVEMBER 1, 1866.

HOW IT HAPPENED.

To anticipate the published proceedings of the late Convention is not our object in writing this article, but for fear there may be a number of telegraphers who sympathized with the "confidential" paper issued some time since by certain persons in this city, and are now wondering why we were reelected for the third time, and yielding to their regrets, are or will endeavor to decrease the circulation of this paper and hamper us in the discharge of our duty.

The proceedings will show that we are now serving, as politicians would say, by the will of the people. Previous to the Convention we foreshadowed our intention to retire from the further conduct of **THE TELEGRAPHER**, to give others a chance to show their capacity to please everybody, and to favor ourself with a modicum of rest. Knowing, from the many letters we had received, an effort would be made to keep us still in charge, we laid ourself open to the charge of egotism, by stating this fact in our annual report, and in the same document declining a reelection; this purpose was maintained, and replies to this effect were given to all importunities to run again.

When our nomination was made against our wishes, we instantly arose and declined it, but the Convention being called upon, refused to accept our declination, and as a result of the ballot our reelection was declared by the chairman. It has been our rule to respect the will of the majority, and for this reason we undertake to carry forward this enterprise another year. Under these circumstances we think we have a right to call upon every one, whether favorably or unfavorably disposed towards us, to give us a helping hand, both in the way of subscriptions, advertisements and interesting articles or items.

To those who may have some personal feeling upon the subject—and these are apt to be non-subscribers—we wish to ask them not to forget that this is *not* an individual enterprise, but one carried on by a large number of telegraphers in the United States, and one in which all may and should have an interest. Bury all sectional party or personal feeling and use your every exertion to assist us, as the instrument of others, in maintaining an enterprise, the age of which can now be counted by years, and which will, by your united effort, thrive and grow strong. **THE TELEGRAPHER** is not likely to succeed by the energy of one person alone. Unless you supply the sinews of war, no battle can be successfully fought. To carry on a paper without a revenue from subscriptions and advertisements and contributions for its subject matter, is like fattening cattle without food.

These remarks are not made because we are now in great need for money, but for fear private feelings may stand between many men and what ought to be their duty. As conductor of this paper we must take a long look ahead, and endeavor to see our way clear through to the end, that this paper does not cease its issues for want of material aid. The recent withdrawal of a large advertisement, brought about by difficulties not in any way connected with this paper, and the apparent slowness of the usual yearly renewals of subscriptions makes us naturally solicitous about our future prospects.

Many tell us, and it would be our feeling too, that they will take the paper as long as it is published, regardless of its views, or who is its editor, upon the broad ground that it is a *telegraphic newspaper*.

As we cannot know all that is passing, it is absolutely necessary that our readers should keep us well posted in all matters and from every point. No one need hesitate to give information for fear of being discovered and suffer from the ill-will of any one, for the same rule applies to this paper that is the guide of all others—*i. e.*, all contributions are confidential unless otherwise desired or directed; but no one can use this privilege as a shield to be revengeful or ungenerous.

TELEGRAPHIC MISCELLANEA.

MR. CYRUS W. FIELD arrived in Boston on Oct. 2d, and at his home in this city on the 3d. On Monday, Oct. 1st, a banquet was given in Liverpool to celebrate the success of the cable. During the festivities Mr. Field was proposed and drank amid great enthusiasm. Mr. Field says the cable is worked with twelve cups, Daniell's battery, and can be worked with one.

MAJOR F. L. Pope and his dog "Gammux," arrived here in the Ocean Queen on the 20th ult., after an absence in British America of eighteen months.

THE Provincial Co. opened their line from Montreal to Quebec on the 15th ult.

We were in error stating Mr. Wheeler, of Boston, was Chairman of the Committee on the Constitution and By-Laws. He was Secretary, and Mr. Pannell, of New-York, Chairman.

RECENTLY a combination instrument was worked on No. 5 wire from Philadelphia to Pittsburg, and No. 6 wire from the latter to the former city, making a distance of seven hundred and fifty miles at the rate of nearly forty words per minute. These wires are insulated with the Brooks Patent Insulator.

On the 11th Oct. the Gold Room Office of the Western Union Co. in this city sent and received over one wire to Boston between 10 A. M. and 4.25 P. M., seven hundred messages.

THE following dispatch was received at the Military Telegraph Office in Washington at nine o'clock P. M., October 1st, and delivered to the President ten minutes later:

"LIVERPOOL, Oct. 1st, 1866.

"To the President of the United States:

"Monday, 9.30. At a banquet now being held at Liverpool in honor of the Atlantic cables the following toast was proposed by Sir Stafford Northcote.

"The President of the United States—may the new bond of union between Britain and America be lasting, may the continuity never be broken, and its force never be impaired. (Signed) CAPTAIN HAMILTON."

A UTICA paper says: "The Syracuse Journal (malignant radical) of Tuesday evening, made this boastful confession, which is exceedingly frank, to say the least:

"Pennsylvania votes to-day. So do Ohio, Indiana and Iowa. We beg to inform our Copperhead friends that the Republicans have made arrangements to put none but Republican operators in the telegraph offices to-night. They may, therefore, expect to hear of big Union majorities to-morrow.

"This is the way in which 'big Union majorities' are made upon paper in the earlier telegraphic returns. The people can now understand it."

"What do 'P.' 'J.' and 'N.' of Syracuse, think of the above? The question is, 'Am we or am we not?'

HUMORS OF THE TELEGRAPH.—A pair of lovers fleeing from stern and cruel parents were married in the cars near St. Louis the other day. Papa telegraphed to the conductor to "send his daughter back," but he telegraphed back, "never return fair on this road."

A ludicrous mixing up of animals was effected by the telegraph last session in the House proceedings. Mr. Blaine, in contrasting Mr. Conkling with the late Henry Winter Davis, made use of the phrase, "a whining puppy to a roaring lion." The telegraph converted the king of beasts into a "roaring cow," for which an apology is certainly due.

A. Truesell, of Great Bend, recently telegraphed to W. H. Jessup, assessor of the Twelfth District, as follows: "I will send my *spectacles* by Williams, of Springville." The dispatch reached Mr. Jessup thus—"Send my *spectacles* by Williams to Springville."

A gentleman telegraphed to Indiana, Pa.: "Where will a telegram reach Robert Thorne, Insurance Agent, to-day?" The operator received it: "Where will a telegram reach Robert Thorneinsur & Co., Agent, to-day?"

THE cable across the Straits of Northumberland, connecting New-Brunswick with Prince Edward's Island, was successfully laid by the steamer Medway on the 4th Oct. The Medway and Terrible then steamed immediately for England.

JULIUS C. F. FINNEY, an operator, for many years connected with the American Telegraph Company as Manager, died at Norwalk, Conn., on the 3d inst., from injuries received in this city on the 2d inst. by being run over by a New-Haven Railroad train at Twenty-seventh street and Fourth avenue.

THE New-York, Newfoundland, and London Telegraph Company will place in thorough repair, immediately, all their telegraph lines, and build an entire new line from Port Hood to Heart's Content as soon as it can possibly be done.

WESTERN UNION Co.'s stock sold at the Stock Board on the 23d Oct. at 54 $\frac{1}{2}$. The stock of the Insulated Company sold in Boston at 14, and that of the Bankers' and Brokers' in Baltimore, at 9 $\frac{1}{2}$.

An important decision was given in the Court of Exchequer in London. A Mr. Wilson had sued Mr. Jones, an underwriter, for £200, for which sum he had insured the plaintiff's interest in the Atlantic Telegraph cable. The defense was that there was not loss within the meaning of the policy. The court held the contrary, and gave judgment for Mr. Wilson.

CHANGES, ETC.—Mr. D. H. Bates, formerly Assistant Manager of the United States Military Telegraph, has been appointed Manager of the W. U. Co.'s Washington Offices.

C. B. Noyes, late Error Clerk in the Am. Co.'s Washington Office, has taken a position as Printing Operator with the W. U. Company, in this city.

J. R. Johnston has been transferred by the W. U. Co. from Washington to Selma, Ala.

■ William Dyer, lately in charge of the B. & B. Co.'s Stock Board Office, this city, has on account of ill health taken charge of the Yardleyville Office, same company, relieving J. R. Mills, formerly of Trenton, who has gone to the Philadelphia Office of the same company.

Ransom Phelps, who has for several years past been in the American Co.'s Office, at 145 Broadway, this city, is now with the B. & B. Co., at 16 Broad street.

J. L. Cherry, lately in the East Oswego Office, has resigned to travel, until January, when he engages in other business. H. B. Chamberlin, of the Main Office, Oswego, relieved Mr. Cherry.

W. H. Heiss, for many years a Superintendent respectively of the Magnetic, Peoples', American, and W. U. lines, has resigned his position of Superintendent of the Great Bend and Long Island Divisions of the last-named company, and has been appointed Superintendent of the International Co., and sailed on the 20th ult. for Florida.

THE Western Union Telegraph Company have opened a telegraph office at the Union Stock Yard and Drove Company in Communipaw, N. J., on the line of the New-Jersey Central Railroad. Messages are now passing over the wires. Tariff from New-York 30 and 3.

PATENT CLAIMS.—58,382—**LIGHTNING-ROD.**—Henry B. Comer and John Denton, Pittsburg, Pa.

We claim a new article of manufacture, to wit: a lightning-rod consisting of a central core from which extend two thin wings, said core and wings being made in one piece and twisted, the whole being made by means and constructed in the form substantially as herein described and for the purpose set forth.

58,594.—**TELEGRAPH INSULATOR.**—W. H. Burnap and J. D. Brasington, New-York City.

We claim, 1st, A non-conducting ring or disk fitted in the base of a hollow shell insulator below the point at which the pin is secured, substantially as and for the purpose herein set forth.

2d. The non-conducting disk, M, m, fitted with springs, P', P², and adapted to be confined in the base of the shell, A, substantially in the manner and for the purpose herein set forth.

3d. The within-described combination and arrangement of the shell, A, H, confining material, J, inverted cup, O, and removable non-conducting disk, N, as and for the purpose herein set forth.

MR. THOMAS HUGHES, author of "Tom Brown at Oxford," and London correspondent of *The Tribune*, writing under date Sept. 15, says:

"The recovery of the 1865 cable has raised a certain amount of languid interest here. I don't mean, of course, among the newspaper correspondents and leading article writers, who have, of course, done the correct amount of tall writing about it, or on the Stock Exchange, where share-brokers have been having a good time in connection with the event, which has been a God-send to both of these classes in these dull times. But people in general have been saturated with sensations of this kind, and the cable sensation was discounted some years ago. We should not turn a hair, I suspect, if it were suddenly announced that the submarine tunnel to France was in working order, or that the aeronauts had solved the problem of steering a balloon in the wind's eye. We suspect strongly that all the talk about the cementing relations with you, because we can exchange messages in half an hour is moonshine for the most part. You and we both send angry messages as well as civil ones along the wires, and unfortunately science has not yet discovered the metal which will refuse to be the conductor of lies, and it is not easy to see how England or America are likely to benefit by the instantaneous transmission of these. When

we begin to see the advantage of understanding one another better, and conducting our intercourse as relations near in blood should do, we shall have an *intense cordiale*, though both the wires were to snap in deep water, and it took six months instead of ten days to get from New-York to Liverpool."

Thomas talks sensibly. We are not going to love John Bull just yet, simply because he has thrown us a line.

THE last *Gazette* from Madrid contains a decree, dated the 29th of August last, annulling the concession made to Marcoartu and associates for the establishment of their submarine telegraphs in the West Indies.

The London Times compliments Lord Stanley on his speech at the cable banquet in Liverpool, which was, it says, designed to satisfy the United States that our relations with that country are safe in his hands. *The Times* suggests that his lordship should take in hand the differences relating to the Alabama claims, which, untractable as they may seem, it is persuaded can be set at rest if the necessary temper and judgment be brought to bear upon them.

The Times further suggests that England should offer to submit her neutrality laws, together with those of the United States, to revision by a mixed commission. Also that the time has come when concession respecting the Alabama claims is no longer open to misconstruction, and would be accepted by the United States as a spontaneous act of good-will.

INTELLIGENCE from Russian America states that large strata of auriferous minerals have been discovered in those northern latitudes by the American working party sent out to construct the telegraph that is to connect three continents. It is asserted that the Californian ore is less pure than the new treasure trove.

CONDUCTIVITY.—After the success of the Manager of the Atlantic Telegraph Company it will be impossible for men of science to persist in saying *Glass* is not a conductor.

IN a letter recently received, dated Heart's Content, 1st October, from a gentleman connected with the Anglo-American Telegraph Co., he says: "Both cables working divinely. In conversation we have got up to twenty words per minute, though the working average is only seven or eight. Your American lines are getting us into sad disgrace in England. Pray reform it altogether."

A FOREIGN correspondent says:

"The Atlantic Telegraph Company are inclined to make hay while their sun shines, and have just announced that they propose to increase their nominal capital to £5,000,000 from £2,000,000, at which it now stands. No adequate reason for this increase is given, and one does not see at once why it is wanted. If they can earn £2000 a day, as their sanguine members anticipate, even at the reduced prices, they will be able, one would think, to find any extra capital they may want out of income, after paying splendid dividends. The hankering after the handling of these huge sums is the fatal complaint of all our great company men, and the international enterprise falls into the regular groove."

A NOTICE posted in Paris announces that one of the wires of the submarine telegraph between France and England has broken, and that the two remaining wires work badly. Therefore the transmission of dispatches will be considerably delayed. The telegraphic wires on the French and Prussian line are likewise out of order.

The Shanghai Recorder states that Mr. Grant's Trans-Mongolian telegraphic scheme is already so far advanced as to give reason to believe that they may expect to receive telegrams by the first steamer from Tientsin after the breaking up of the ice. Mr. Grant will leave per "Corea" steamer for Taku, whence he will proceed to

Kiatcha, for the purpose of forming the line of couriers between Kiatcha and Tientsin.

MR. HENRY GUY, of London street, city, sends us a description of his patent deep-sea telegraph cable. It consists of a conductor bedded in gutta-percha which is surrounded by canvas. Then comes a protection of wire, and then a thickness of cork and rubber, over which a layer of rubber is placed, the whole being externally protected by cordage. This cable, although said to be stronger than any deep-sea cable yet constructed, is made so buoyant by the combination of cork carpet or cork carpet pulp and India-rubber, as to take away all risk of strain on the conductor in paying out. Mr. Guy states that it will partially float away from the ship and gradually find its own bed, being one-third lighter in water than in air. We may add that patent cork carpet is made of ground cork and India rubber combined.—*Mechan. Mag.*

FRANK LESLIE, in his *Illustrated* paper of the 6th ult., publishes a portrait of P. H. Burns, whom he styles the Champion Telegrapher, and says:

"Telegraphing has assumed even a new importance in the public eye since the laying of the Atlantic cable, and the proof thus furnished that Puck could, as he boasted, 'put a girdle around the earth in forty minutes,' the only fault being that he named too long a time for the operation. Many thousands interested in telegraphic operations and manipulations will be pleased to see the portrait published this week of Mr. P. H. Burns, acknowledged the champion telegrapher of New-England and New-York (which really means, in effect, champion of the world), holder of the champion key, and victor in the telegraph matches which have recently created so much excitement in Boston and other Eastern cities. Mr. Burns is a New-York boy, having been born at Fishkill Landing, in this State, and in the business ever since his thirteenth year, he being now twenty. When it is added that he has accomplished the wonderful feat of sending two hundred and fifty words over a line in five minutes and forty seconds—unequalled, thus far, in the whole history of telegraphy—the celebrity accorded to Mr. Burns here, and in the regards of the thousands of other telegraphers, who are so proud of him, will not seem overstrained or out of place."

A LETTER received at San Francisco from the Western Union Extension Telegraph party, dated St. Michael's, Northwest Coast, Aug. 20, says: "The ships from San Francisco have not yet arrived, but they are expected daily. The telegraph employés have had no direct news from the outer world for more than a year. Col. Kennicott, the leader of the St. Michael's party, died suddenly at Milato Bay last May. The remainder of the party are well. Stores are plenty, and Russian officers have treated the party with great kindness and hospitality."

MR. H. W. Carpenter, President of the California State Telegraph Company, arrived in San Francisco on the 3d ult. on the steamer Golden City.

MARRIED.

In New-York city, on Tuesday, October 16, by the Rev. Mr. Noyes, at the residence of the bride's mother, Mr. George Warren, of Buffalo, to Miss Caroline A. Pease, daughter of the late William Pease, of the former city. No cards.

Obituary.

On the 18th inst., David W. Dean, of Montreal, C. E., of organic disease of the heart, aged 24 years and 10 months.

The deceased was formerly in the Brokers' Office, People's Telegraph Co., New-York, after which he accepted a position in the main office, Bankers & Brokers Co., same city. He has recently had charge of the Walnut street office, Bankers & Brokers Co., Philadelphia. In every position he was known for his reliability in business affairs, and was ever valued for honor, integrity, and worth. A true man of exalted principles and broad mind, a large heart, and a soul destined to receive its just reward in the world to come. He left us like the shooting star, which now shines radiant, and in an instant is lost to view, but still exists. His worth will long be cherished for emulation by those who knew him, and although taken from us in the morning of life, the memory of his many virtues will exist in our hearts for ever.

PHILADELPHIA, October 16, 1860.

B.

A Bit of Gossip.

A good story is related of a Congressman who in its early days refused to believe in the telegraph, and expressed his incredulity even after the line from Baltimore to Washington had been many days in successful operation. A certain friend of this honorable gentleman happened to have a little joke upon him. Walking late one fine moonlight night in the Capitol grounds, the doctor caught a glimpse of his distinguished friend in company with a lady very much prettier than his wife. Lest the jealousy of the latter should be excited the pair hastily separated to avoid observation, and coming over to the doctor, the Congressman, with a communicativeness entirely uncalled for, assured his friend that he had wandered up the grounds "to get some grass to feed his rabbits." The doctor consented to keep his joke to himself, with no restriction upon his own enjoyment of it. Now when this same Congressman one day entered the Baltimore telegraph office to demand an experimental proof, and they told him to name whom he would call in Washington, it happened that he named the doctor aforesaid. In a very few minutes he was surprised to get word from the doctor of some commonplace import. He still suspected a forged message, and ordered that that fact be communicated to the doctor. The response was prompt—"I want a little grass for my rabbits." The operator was confounded. The incredulous honorable looked at the message. With a blush he tore it up, exclaiming, "The thing works, for that is doc., or the devil!"

PROFESSOR TOMLINSON, of King's College, points out, in a letter to *The Times*, that the apparent impressions of trees in miniature, so often observed upon the bodies of persons killed by lightning while standing under trees, are in reality produced by all electrical discharges, whether of lightning or from a Leyden jar, and that they have no connection with trees.

A SPARK OF INTELLIGENCE.—It is proposed to give a banquet to those who have so admirably managed the Atlantic cable. Of course they will have *electric currents* for their desserts.

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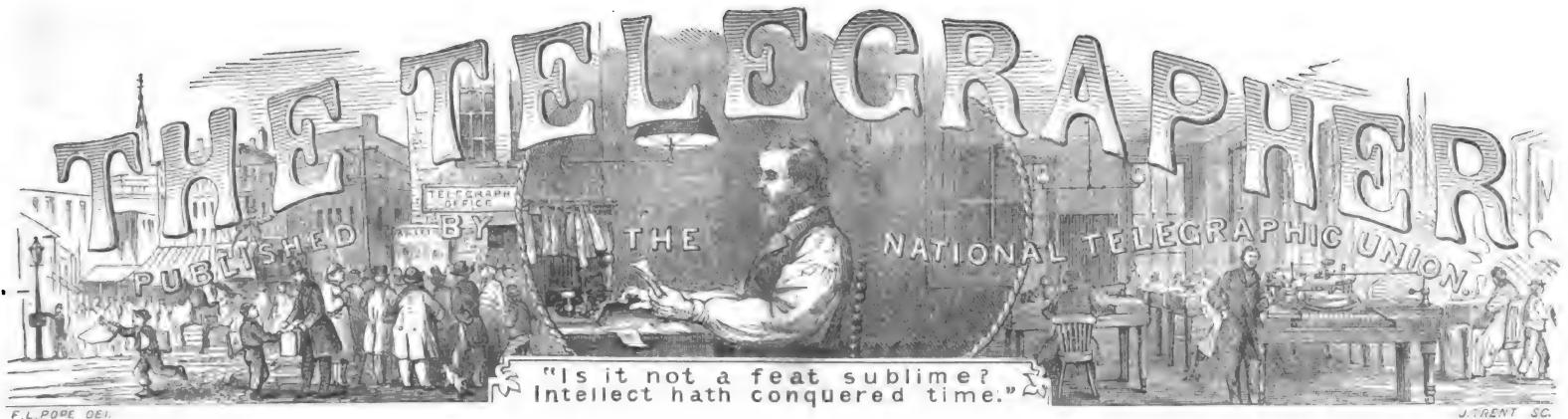
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Vol. III.

New-York, Thursday, November 15, 1866.

No. 40.

THE BROOKS PATENT INSULATOR.

(Concluded.)

ROBERT J. BLACK'S EVIDENCE CONTINUED.

5th. Please give your reasons for believing the Printing Instrument could be worked at full speed during this most unfavorable weather?

Ans. From the absence of escape, and induction or cross currents, and the strength of the current from the distant battery. My familiarity with a "Morse circuit" and the way a Printing circuit would act under similar circumstances leads me to the conclusion that the Combination Instrument would work to its full usual rate of speed under the unfavorable circumstances mentioned.

6th. What do you consider the full speed of that instrument?

Ans. I consider forty to forty-five printed words per minute as the usual full speed of the Printing Instrument.

7th. Have you ever seen any other kind of insulator used to insulate two wires on same cross-arm that was effectual in accomplishing its object on a much shorter circuit—say 100 miles—under the most unfavorable circumstances?

Ans. I have not. A rain-storm or fog of even moderate duration causes great escape and induction, so much so that wires that might possibly be worked over the escape are rendered useless from the latter cause. When I say worked, I mean at a speed varying from one-half to two-thirds less than usual—instead of from forty to forty-five words per minute, from twelve to twenty words per minute.

8th. Do you mean that both wires could be worked at this rate of speed?

Ans. I do not. I mean that to work at even this rate of speed one wire should either be kept quiet, closed or open.

9th. How far do you think two wires could be worked separate and distinct on same cross-arms, insulated in the manner of No. 4, during this most unfavorable weather?

Ans. I think I can safely say such wires could be worked on a circuit of one thousand miles. I never worked a circuit of this distance. I only judge from the state I have found No. 4 wire under the unfavorable circumstances before mentioned.

10th. Have you ever seen wires insulated with any kind of insulation, except No. 4, that could be worked that distance with the Printing Instrument under these unfavorable circumstances?

Ans. I never have.

11th. It is then your opinion that two wires on same cross-arm can be worked separate and distinct at such very unfavorable times to their full speed?

Ans. Such is my opinion.

STATEMENT OF JOHN FOTTRELL, LATE MANAGER U. S. TELEGRAPH OFFICE AT HARRISBURG.

"I was Manager of the United States Office at Harris-

burg for two years. I am familiar with the United States wires from Philadelphia to Pittsburg.

"No. 3 wire was the last wire strung, put up about a year after the other wires; is a galvanized wire, insulated with a large glass fastened with red cement to a bracket boiled in coal tar. It was built for a through circuit, no intermediate magnets allowed thereon except one at Harrisburg. During the prevalence of very bad storms I have known the wire to completely stop work from the effects of the weather alone.

"I have read the questions and replies made thereto by Mr. Jones, and do hereby certify to correctness of Mr. Jones' reply to question seventh.

"JOHN FOTTRELL."

PITTSBURG, Oct. 10th, 1866.

DAVID BROOKS, Esq.:—Dear Sir:—I have examined carefully the questions and answers thereto by L. S. Jones, and can certify to the truth of those answers in every particular.

I will here state in substance that from my experience as operator at Pittsburg in working lines of long circuits now, from the time the lines were first put up in 1846-7, that a wire insulated with the "Brooks Patent" can be worked at full speed and capacity when a wire of similar length and under similar circumstances, with any other kind of insulator, cannot be worked without the aid of intermediate repeaters, or under the greatest difficulty.

The lines, as first erected, had a plain glass with a groove in which the wire was placed. By the routes then adopted (the pikes) the distances from Pittsburg to Cincinnati, and from Pittsburg to Philadelphia, were about the same, and although built by the same person (Henry O'Reilly) and the same insulator used the entire distance from Philadelphia to Cincinnati, the wires from Pittsburg to Cincinnati could be worked tolerably well, when the lines to Philadelphia could not be worked at all—that is, during heavy rains—and this was accounted for from the supposed unfavorable conditions of country through which the eastern wires extended; that is, over the mountains, where they were affected by the clouds or fogs that always enveloped the mountains in times of storms; and after leaving the mountains they kept the banks of the Juniata and Susquehanna rivers over a hundred miles where heavy fog so often prevail.

We could never work the wire to Philadelphia with the various styles of glass during the prevalence of storms until the first style of the "Brooks Insulator" was introduced. The "Wade" insulator was tried in 1857, and never could be worked through on a stormy day. The first style of Brooks' Insulator, though never as perfect as the present, could be worked through any weather, though I cannot say to its full capacity in clear weather. Twelve and twenty are thus insulated from New-York to Harrisburg, or mainly so, and are not the perfect wires they are from Harrisburg to Pittsburg, which have the patent improvement, or in same condition as No. 4 referred to in the questions to Mr. Jones.

I make this explanation because many suppose the first insulator was the patent insulator, and that twelve and

twenty are insulated with this kind, which is not the case east of Harrisburg.

Yours, etc.,

M. H. MARKLE,
Chief Operator, Pittsburg Office.

We, the undersigned operators on the Combination Printing Instrument at Philadelphia, are familiar with the working of the wires and their conditions in unfavorable weather. We have fairly considered the questions propounded to Mr. Black, and the answers he has given to them, and we hereby certify to the correctness of his statements. We believe he has in no particular overstated the facts.

J. R. WOODRUFF,
GEORGE W. SNYDER.

PHILADELPHIA, Nov. 1, 1866.

PICTURES FROM A TELEGRAPHER'S WINDOW.

THERE is a book which has never been written, and which would be, if written, one of the most interesting books ever published, replete as it must be with pathos and quaintness enough to puzzle the wits of a Dickens. Nor need it be a book written without an earnest purpose, for within the scope of its subject is enfolded more to move to tears or to stir to humor than in any other subject of which we wot. Let the telegrapher, therefore, who would write something novel, piquant, and readable, write for a single week a matter-of-fact journal of all he sees and hears from his little window in the receiving office. Let him delineate his experiences with clowns and gentlemen; with widows and gay Lotharios; with lovers and beloved; with those who are too poor to pay and those who are too stingy to pay; in short, with all the separate individualities with whom he holds communication from the little window in front of his desk.

Here is a Golconda of rare, racy, humorous, and pathetic experiences which would serve Dickens for the material of a dozen most Dickensy and idiosyncratic novels. Barnaby Rudge appears occasionally with a telegram; the young man Guppy, with English walking-coat, as represented in the engraving, struts in, and deposits a telegram, with an air of Pip-like expectation; Mr. Samivel Weller, with his peculiar coincidences, makes his occasional appearance; and, as to the matter of Pickwick and Widow Bardells, every telegrapher knows a half a hundred of them. For studies of human nature, there is, in fact, no place like a telegrapher's little window; and the man who sits there makes the acquaintance of a dozen Uriah Heeps, with all the original Uriah's shambling and hypocritical humility, during every hour of the day. Sir Pertinax McSycophants, who have discovered the new nostrum by which to make one's way in the world, haunt his vision by the score; and he learns to distinguish them by the swagger in their gait, and by the stiff way in which they carry their empty heads. When one's head is empty it needs no unusual strength of neck to carry it bolt-upright.

It is strange how soon one sitting by a telegrapher's window begins to jot random notes on the odd and whimsical phases of humanity and to make mental comments

THE TELEGRAPHER.

upon the singularities of his fellows. There is something in the atmosphere of the thing which induces criticism, cynicism, and laughable comment; and no telegrapher could any more avoid being a student of humanity than could Dickens as a reporter, or Thackeray after he lost his fortune and became thereupon a demi-Diogenes.

The telegrapher, in fact, is a sort of Diogenes in his tub, who laughs at the comedy and weeps at the tragedy of society and business. He learns to know his man by a kind of telegraphic intuition. He comprehends more practical physiognomy than Lavater's treatise can account for. He scans an individual's peculiar phrenology with a gaze more alert and skillful than the suave Professor Wells, and makes his own *sotto-voce* comments.

In petit, the telegrapher's window is an eye through which he looks upon the world, and before it passes in a single day more of the very wine of human experience than one could observe in a decade of European travel. The business-man, brisk, keen, and active, leers at him through that window; the burglar, bold and skillful, sends his telegram in cypher to a confederate; and the widow, in weeds, sends to her friends the mournful sentences: "Charley is dead. Come to me!" The telegrapher receives the communication respectfully, duly marks it with some hieroglyphic signs, and speedily the electric soul of the battery utters, a thousand miles away: "Charley is dead. Come to me!" It may be to a mother, to a father, or to a brother; but it carries a pressing request, and to-morrow or the day after the individual to whom the message is addressed is in New-York. Or it may be that the father, or mother, or sister, or brother, cannot leave home; and then comes back the sorrowful answer: "Business is pressing; will come as soon as I can." And the widow weeps alone with her dead.

Curious messages in curious handwriting are handed to him through the window—telegrams with bad spelling, and telegrams with bad grammar; telegrams that a hieroglyphicist, who may have delved for years amid the mummy-cases of Egypt, could never unriddle; and these last are handed back with a suave request to read and interpret.

There are telegrams in cramped, unnatural hand, and telegrams in the round, fanciful hand of the writing-master; telegrams with capitals where they should not be, and telegrams with no "caps" at all—but very few with "caps" where they should be; telegrams of laborious pomposity from venerable professors, and telegrams curt, and brief, and epigrammatic, from those who know how to save a penny at the expense of perspicuity; in short, there are telegrams of all sorts—not excepting dead-head telegrams, of which some are sent and some are not sent, according to the claims of the individual to be considered a dead-head.

Opportunities for note-jotting were never afforded elsewhere than at the telegrapher's window with profusion so varied. The dry-goods clerk in a leading house may comprehend the quips of the fashionables, but his vision has no breadth of scope compared with that of the telegrapher at his little square, thick glass window, with its single pane in its carved setting. The newspaper-man observes, but observes at a distance and without immediate contact with the phases upon which he comments; the traveler takes notes of landscapes, and gets some superficial notion of the general habits of the people; but for glimpses into the inner life of humanity at large and of every grade, there is no stand-point like that little window with its single pane. It is like having the private correspondence of the world spread out before you, revealing motives, and passions, and thoughts in the innermost sanctuaries.

A book might be written which would thrill the world upon these glimpses of the pathetic and the grotesque in human experience; and that, too, from the jottings of a single week. Had Poe, or Washington Irving, been a telegrapher, what weird paintings from the innermost galleries of the human heart would they not have evoked?

And it has never occurred to any of the fraternity to paint a gallery of paintings in connection with this subject; and the task is left to be done which ought to have been done a decade since.

Now, rather to indicate what may be done in this way, we propose, from time to time, to give some not over-colored random jottings from a telegrapher's window, which may serve as *memoranda* indicial of the possible interest which may be engrafted upon this subject and possibly to amuse the fraternity with a recount of that which they have seen, and part of which they have been, but have not noted.

C. H. H. PANNELL.

BROOKLYN, November, 1866.

Eloquently Put.

THE able discourse of the Rev. F. H. Hedge, D. D., of Brookline, delivered before the National Unitarian Conference at Syracuse, has been published in *The New-York Christian Inquirer*. In his discussion of the relation between science and religion, occurs the following grand passage, referring to "the great achievement of the year." An electric effect was produced by the delivery of it, which can hardly be felt by the mere reader; still, it cannot but be admired as a masterly piece of condensation and graphic description:

"In this connection, fellow-Christians, it becomes us, I think, as a Christian body in convention assembled, to take solemn note of the great achievement of the year—the coupling of the hemispheres by bands of electric communication, stretching from continent to continent beneath the sea. That unfruitful sea, the flaw of the planet, how fruitful it has been of discoveries and inventions, from the hollow log with which the savage creeps timidly along the shore and scarce doubles the headlands of his native bay, to the three-masted ship with which the instructed civilized seaman puts boldly forth on the trackless deep; from the imperfect guidance of the heavenly bodies by which the ancient navigator steered his precarious course, to the mariner's compass; from galleys propelled by oars or latteau sails that caught the breeze

"That blows from off each beaked promontory,' to the cunning engine with which the modern helmsman advances in the eye of the blast.

"And now at last, not content with traversing the abyss in person, and that with the accelerated speed of modern civilization, man has found out a way to converse across it with the dwellers on the other side, as with his neighbor across the street. Subsidizing for that purpose the swiftest of material agents, by a kind of earthly omnipotence, he compels the lightnings to be his couriers, and drives them by the wondrous road he has built for their journeying along 'the bottom of the monstrous world,' where, since the birth of time, no sentient heart ever beat, no voice ever broke the eternal silence, no thought ever penetrated but the omnipresent thought of God. Through those untraversed and sunless realms a road has been built for the lightnings to go upon, and to carry intelligence and conscious thought and purpose, and tidings of war and peace, and solemn greetings across the unsympathizing vastness, virtually annihilating the hostile element, and so fulfilling the prophecy that there be 'no more sea.' I congratulate you, fellow-Christians, on this happy consummation of an enterprise which brings Christendom into closer fellowship. 'Glory to God in the highest; on earth peace and good-will to men,' be its fruit!"

A MEETING of the operators of the Southern District of the Montreal Telegraph Company was held by telegraph on the evening of the 27th October. Mr. Henderson, of Ogdensburg, in behalf of the operators, in an appropriate address, presented Mr. Edwin Pope, for three years Superintendent of Southern Division Montreal Telegraph, with a silver pitcher, tray, etc.

Mr. Pope in a few happy remarks accepted the gift. A mutual interchange of good-will followed. Mr. Pope has

been appointed Superintendent Eastern Division Montreal Company, with headquarters at Quebec.

A PRESENTATION.

ON the evening of Oct. 30th, the associates of Mr. S. E. Mayo, the retiring Manager of the Western Union Telegraph Company's Albany, N. Y., Office, presented him with a beautiful picture, containing vignettes of the donors to the number of twenty, placed in a circle, and surrounding that of the recipient.

It is one of the most chaste and beautiful pieces of workmanship we have ever seen, and reflects great credit on all who have aided in getting it up. At an appointed hour a happy party took possession of the office, and calling Mr. M. from his desk, Mr. James H. Rugg addressed him in the telegraphic vernacular as follows:

"You are perhaps surprised to see so large a force of 'extras' on to-night, but it is not too large for the work we have to do. We have heard that you expect soon to leave us, and we have met together this evening to assure you of our confidence, esteem, and friendship, and express our regrets that the business and social relations which exist between us are to be sundered. You, sir, have long been identified with telegraphy. You have grown with its growth, and have seen with pride its advancement from its days of trial and experiment to the present grand reality; and if your 'circuit' of life is long extended, you will doubtless see as great an advance in the future as there has been in the past; for you and we all realize that our Art, though wonderful, is still far from perfection."

"But, while telegraphy has advanced so rapidly that it has in its short life of twenty years become indispensable in our commercial and social relations, other arts and sciences have quite as rapidly. We remember the crude profiles which our parents and grandparents cherished as the pictures of dear ones. A great improvement on these was given us in the daguerreotype. Since then, we have had the many varieties of ambrotype, culminating in the photograph of the present day. We know not what further improvement may yet be made in telegraphy or photography, but as you are soon to 'switch off' into another 'circuit,' your associates of the Western Union Telegraph Company desire to offer you this specimen of photography as a token of our friendship for, and good will to, our retiring Manager. And now I need but say that your associates, who have been instrumental in its preparation, will be 'repeaters' of my words, when I say that we hope your 'lines' will be cast in pleasant places, that the 'current' events of your life may all flow in the right direction, and that when the 'circuits' of our lives are finally 'grounded,' we may meet where there are no 'earth currents,' 'no crosses,' 'no escapes,' and 'no rainy days.'"

For a moment Mr. M. was the most surprised man ever looked on, but finally warmly replied:

"DEAR ASSOCIATES AND FRIENDS:—I needed not this generous testimonial as a further assurance of the respect, regard, and friendship you entertain for me; your conduct, courtesy, and uniform kindness prove this to me every day of my life. In the carrying out of orders received from headquarters, it may at times have seemed to you that I was strict; but I have never for a moment forgotten the interests of the operator, or sanctioned anything that robbed labor of its nobility, or aided capital in any unnecessary excitement. Since I have tarried at Albany, many pleasant evidences of respect and esteem have been received, but this beautiful picture shall be cherished as *not* the least among them."

Among those present at the "gathering," were Messrs. G. W. Balch, S. B. Gifford, A. B. Waite and C. S. Jones, Mr. Mayo's successor.

By the treaty just signed by Prussia and Saxony, the former power obtains exclusive possession of the Saxon telegraph wires.

Correspondence.

SAN FRANCISCO, Sept. 26, 1866.

TO THE EDITOR OF THE TELEGRAPHER:

A CARD appeared in your paper of September 1 from Mr A. Bruckman, New-Westminster, in which he expresses proper surprise at the acceptance of a resignation never tendered, and also assures you that his dues were paid up to January 1, 1867.

In explaining this matter I have to say, Mr. Bruckman having removed from Genoa, Nevada, the place of his admittance into the Union, to New-Westminster, where he cannot well attend the meetings, wrote to Mr. Davis, the Manager of the Genoa Office, asking for the amount of his dues, stating that he intended paying and withdrawing from the Union. Mr. Davis so informed Treasurer Hodge, who sent him his bill, and submitted the facts to next meeting, whereupon a motion was carried accepting his supposed resignation.

Mr. Bruckman failed to notify any of the District officers of his prompt remittance of dues up to January 1, 1867, to an outsider, who neglected to hand them over to the Treasurer. The result was, instead of being surprising, quite natural. None of the officers knew of his remittance until the 20th inst., some four or five months afterwards.

We are far from discarding Mr. Bruckman or any other prompt member from this District, but assure you and him that we are happy in retaining his name and influence, and extending to him the privileges of the fraternity.

Respectfully yours,

J. S. URQUHART, Dist. Dir.

WASHINGTON, D. C., Oct., 1866.

TO THE EDITOR OF THE TELEGRAPHER:

DOUBTLESS much talent is lost to the profession by those who waste their energies in testing different styles of receiving, instead of adopting a good system at the start. To obtain correctness, elegance, and rapidity in writing and ease in working the following style is probably best calculated: An erect position, hand and arm free, and the writing light as possible. Although I found this style rather difficult at first, it has stood the test of hard work since. In receiving slow writing the receiver should copy all that is sent and more if possible; he will then have some rope to let out when necessary. To follow the sender closely requires faster or more irregular writing than to follow a few words after, because the key writes some words faster than the pen and some slower. About three words after the sender is best in steady work. The memory may be improved by increasing this number.

"There is no excellence without great labor," and probably none without system in that labor.

J.

TO THE EDITOR OF THE TELEGRAPHER:

ONE of your correspondents a few weeks since made inquiry in respect to the solution used in preparing paper for the electro-chemical telegraph. In addition to those you mention I have found the following solution to give excellent results, quite a feeble current marking the paper very distinctly and permanently: Take ten parts by measure of a saturated solution of yellow prussiate of potash, which should be made in pure soft water, and add two parts by measure each of nitric and muriatic acid. It is also advisable to add one part of chloride of calcium, which should be well stirred with a glass rod until completely dissolved. This causes the paper to absorb moisture from the atmosphere, and prevents the paper from drying too rapidly.

Another excellent solution is made as follows: Take equal parts of the yellow prussiate solution as above, and a solution of nitrate of ammonia, diluting them with a quantity of soft water equal to the two together. The

solution of nitrate of ammonia is made by dissolving carbonate of ammonia in good nitric acid until it ceases to effervesce, taking care not to put in too much at once. A little excess of carbonate should be added and remain undissolved. The compound solution does not keep well when mixed, and should be made as wanted. The separate solution may be kept for any length of time, however. Nitrate of lime may be used instead of ammonia, and at less expense. The paper should be prepared several hours before being used.

F. L. P.

NEW-YORK, October 27, 1866.

D. H. Craig and the Associated Press.

THE following notes will explain themselves:

To all agents and correspondents of the Associated Press:

Please to take notice that Mr. D. H. Craig has been discharged from the General Agency of the New-York Associated Press by the unanimous vote of the members.

Mr. James W. Simonton has been appointed General Agent, and due attention will be given to his dispatches as such agent,

W. C. PRIME,

Of *The Journal of Commerce*, President.

JOSEPH P. BEACH,

Of *The New-York Sun*, Secretary.

NEW-YORK, November 5, 1866.

REPLY OF MR. D. H. CRAIG.

NEW-YORK, Nov. 5, 1866.

To all Editors and Agents of the Associated Press:

I have read the notice sent over the wires this evening, signed by Messrs. Prime and Beach, and pronounce its assertions utterly and infamously false.

I have not been discharged unanimously or at all. My responsibility is to the Executive Committee, and to them only; and they have not and will not unite in the lying assertions of Prime and Beach.

It is true that I have for some weeks past headed a movement here to remodel and improve our Association, as you will learn from my printed circular, now on its way to you, and it is also true that all these arrangements are completed and will go into effect next Monday.

My resignation has been in the hands of the Executive Committee for several weeks, and whether accepted or not, I should have retired at the end of this week, at which time, as I have good reason to believe, every agent or reporter of the Association will earnestly coöperate in the new movement, which I assure you is started with the most ample backers, and in its results will largely promote the interests of all the papers outside of this city, and I shall confidently hope for your earnest approval.

D. H. CRAIG,

General Agent New-York Associated Press.

FRENCH TELEGRAPHIC ITEMS.

AT the present time the *Corps Legislatif* has under consideration what modifications it is possible to make in the management of the telegraphic system of France. M. Jules Brame, one of the commissioners of investigation, on visiting the central station of the administration, was "greatly surprised to see scarcely a single instrument of French origin in use, nearly all the apparatus bearing the names of foreigners, including Hughes, Morse, Siemens, Caselli, and Bonelli." He asks "why the administration has favored no telegraphs of national origin." The reduction of rates in 1862 has resulted in a steady increase of messages, receipts, and profits. M. de Bussiere, another of the Government commissioners, asserts that any further reduction of tariff would have the effect of choking the wires with work, delaying the messages, and overworking the staff. Why not string a few more wires, employ more operators, and not be afraid of making too much profit?

The Government now sends autographic messages

between Paris and Lyons, but necessarily at a very high price. Caselli's instruments are used. The telegraphic employés in France, like those in England, are wretchedly underpaid, with no hope of advancement, so that men who are worth anything do not remain in the service. This does not tend greatly to increase public confidence in the telegraph, always a necessary result of this short-sighted and illiberal policy.—*The Engineer*.

HUMORS OF THE TELEGRAPH.

From W. B. Wilson's *History of the Organization of the Military Telegraph Corps of the Army of the Potomac*.

U. S. M. T.

METHINKS I hear my reader in wondering astonishment exclaim, "What under heavens do those initials mean?" Be then patient, you wonder-stricken reader, and after poring through a short prelude you will be introduced to the institution I have for convenience styled the "U. S. M. T."

After the bloody and disgraceful scenes in the city of Mobocracy (Baltimore), on the 19th day of April, 1861, it will be remembered the rebels cut off all communication between the capital of the country and the States loyal to the Government, by dastardly destroying railroads, burning bridges, and tearing down lines of telegraph. They hoped by so acting to prevent reinforcements from reaching the capital, and that in the time thus gained the rebel leaders would be able to concentrate their forces upon the banks of the Potomac, demand the surrender of the capital, and thus consummate the overthrow of the Government. The Administration which had just come into power, not inheriting the imbecility nor the rascality of the preceding one, was equal to the emergency it was placed in at this most critical moment. It summoned to its aid that king of railroaders, Col. Thomas A. Scott, of Pennsylvania—a man of giant abilities, whose herculean mind no sooner sees a want than it comprehends its supply. Under his almost magical hand the work of re-opening communication was immediately begun. A work it was, too, that stout hearts would quail at without undertaking. Every second of time was precious—the eyes of the country were upon the man. He, knowing "no such word as fail," went to work. Quickly the work was completed. Bridges built, rails replaced, roads re-stocked, telegraph wires run, troops by thousands transported, telegrams transmitted back and forth, and trusty men placed to work both railways and telegraphs.

Of the "fellers" who worked these latter it is my present object to speak about.

A party of four devotees of the art of telegraphy, or, in other words, telegraph operators, was organized in Pennsylvania on the 25th of April, 1861, and started for Washington, which they succeeded in reaching on the 27th. They came, not through Baltimore, but by the circuitous route, *viz* Perryville, the Bay and Annapolis. It is unnecessary to narrate the hairbreadth escapes which the valorous four made, nor the plans of action they laid for adoption should they fall into rebel hands; suffice it to say, they were prepared to produce *prima facie* evidence of being number one "seceshers," or, failing in that, to fight their way clear. To aid in carrying out the latter programme, it might be mentioned, *en passant*, that they carried four small swords, eight six shooters, ten bowie knives, and six daggers.

The party was composed of, first, a young gentleman of twenty-three years, with a Jewish-sounding name. He was given to "chawing" much "tobak," and also to striking belligerent attitudes whenever he had a little elbow in his power. The second was a smokedomer, who strutted on the classical cognomen of Homer. The third rejoiced in being addressed by the very euphonious title of "Mr. Brown;" whilst the fourth, from the old country, was a short, thick-set person, possessing bushy hair and whiskers, very polite, and whenever upon the "Briney deep, could only articulate "O." "Nary pun

there, my frens." You don't see it! Well, let it pass.

Reaching Washington in safety, they put on the harness, and went to work like good fellows. The gentleman who possessed the Jewish-sounding name was vested with the title and authority of Superintendent, thus forming the nucleus of what was so soon to become one of the most efficient arms of the military service—the U. S. M. T. These initials refer to the United States Military Telegraph, and not, as some cross-grained people allege, the United States Mule Team.

The statesman warrior, Lieutenant-General Winfield Scott, after a trial of the institution, pronounced himself delighted with it, and under no consideration would he be without it.

Good and loyal operators being scarce in the District, a second batch was brought on from Pennsylvania by Mr. Superintendent Strouse. Oh! there I have inadvertently mentioned his name. Beg his honor's pardon, and by way of apology would state that though his name sounds Jewish, he desires it to be distinctly understood he is not of the Israelite extraction. The second batch arrived in the due course of time. It contained darling young Jesse, whose long black locks were the idols of his idle moments; Al or Snipey Snider (an untrained mountain buck); and a pious-looking little fellow who, though not composed of any metallic substance, yet looked very "Tinny."

The next youth that arrived at the seat of war, ready to fight (telegraphically speaking) the battles of his country, was a chap who run from the "Palmetto Republic," named Billy Wilson. Be it understood, this covey was not the redoubtable Billy, the Colonel of Wilson's Zoo Zoos, but a youngster whose valor was considerable, if we are to measure valor by the rule that teaches discretion is its better part; his discretion always keeping him at a safe distance from injury. He once remarked to me, on my inquiring why he did not enter the army, that he had two excellent reasons for not doing so—the first that he was a coward, and second, that he couldn't run. These two causes combined he considered a conclusive reason.

Operators now began to arrive daily; to give a description of all as they arrived would require a far abler quill than mine. The North, East, and great West each sent their representatives of the mystic art to work for the Government in its Army Telegraphic Department. I was stationed in the War Department, doing the honors to all as they reported "O K, and ready for duty," and was thus enabled to make the personal acquaintance of each. A better natured, more intelligent looking, or harder working set than these same members of the Telegraphic Corps did not exist. They were ready and willing to go anywhere, and, if necessary, work twenty-four hours a day (and often they were called upon to do it) without the slightest grumble. Sometimes they would be sent where the sky was the only protecting roof over their heads, tree stump their only office, and the ground their downy couch. Just give one of them a fist full of hard bread, a canteen of water, pipe, tobacco-pouch and matches, and he was ready to open and work an "office" at the picket's line, so as to keep the commanding-general in instantaneous communication with his most advanced forces, or to herald the first approach of the enemy.

It is not proper that I should blow the horn of praise, nor is it my intention to do so, therefore I'll back to the main object of unraveling the notes of my telegraphic note-book.

Daily the mails brought propositions from uninterested patriots for the establishment of a field telegraph. Whilst these patriots were trying to convince the President and Secretary of War that the cheapest and best army telegraph was to organize a battalion, equipped with horses, bose carriages with lofty seats (good targets for the enemy's sharpshooters), insulated cordage, to be laid on the ground, and which cavalry or artillery passing over

would cut to pieces, the U. S. M. T. worked steadily on, and established itself as the "big thing."

The first arrival after Billy Wilson was a youth from Ohio, and although he was not a representative man, yet I must not pass him by unnoticed. One evening the Secretary of War and clerks had left the Department, and nobody remained in the building but myself and the guard of soldiers on the floor below me. Business slacked up, and just as I was picking up a paper to read, a knock at the door caused me to say "come in," and in came —. Well, what? Who? A tall, thin, straight specimen of the *genus homo*, with a little, round head, covered with a coarse black hair, that stuck out stiff and sharp as the quills from the back of a porcupine. This little round head had in its frontispiece a pretty little mouth, large nose, and a pair of wide-opened dark eyes that shot defiant glances from behind a pair of green goggles. "This young man aspires to a command, and has come to bore the Secretary for a commission," thought I, as I saw the dirty undress military suit of "shoddy" he wore upon his person. I therefore addressed him, wishing to know his business. His reply startled me—

"Strange tho' it be, a barber I'm not,
Yet my name sounds not unlike *Luther and strop*;
From Ohio, fair State, to the war I did come,
At the first sound of the fife, first tap of the drum."

(Spoken slowly.) "Where's Col. Scott?" (Uttered in rapid accent.) I trembled. The youth again ope'd his mouth, saying: "Be not afraid, 'tis I; and I'm he who in the noble cause has come to labor with a zeal becoming a Christian telegrapher. Give me your hand, for by your placid countenance I see you too are a Christian. Brother chip, by what I see, you are doubly dear to me." My wits soon returning, I took his hand, and told him to go to the depot, at the other end of the city, where he would receive orders. He immediately departed, with rapid strides, and in a short time the operator at the depot reported the arrival of the being there. The next morning he was placed to work. He is still in the service, an efficient member of the Corps, and a perfect gentleman.

The Corps had not been in operation more than six weeks before the boys all envied the brass buttons of the officers, and longed to wear them. The question of "uniforms" soon became the all-absorbing topic of conversation, and the consequence of agitation was the adoption of the dress uniform of the army, dark blue broadcloth, with nothing to distinguish their wearers from brigadier-generals but the device they wore upon their army forage cap. The cap device was an embroidered wreath, with the letters T. C. in the center. A fashionable tailor was employed to complete some twenty-five suits, at a cost of about thirty dollars each. When the boys raked money enough together they paid the tailor and donned the uniform. Peacocks never strutted prouder than did these operators, every one of whom immediately applied for leave of absence on the plea that unfinished personal business demanded their attention at home. Vain fellows; they wanted to show off the beauty of their dress to devoted sweethearts. (All telegraphers have such articles.) Their vanity was short-lived, however. Some one whispered that permission must be gained from the War Department before they would have any right to appear in their gaudy apparel. Here was a point whose pricks they had not guarded against.

Straightway a consultation was held, and the decision arrived at was that a petition should be drawn up and presented to the Secretary of War. It was done. Day passed day, and no answer came. All became fretful; some argued the delay augured a grant of the prayer, whilst others claimed it did just the reverse. At last anxiety was quieted, and hopes raised high, by the receipt of a long-enveloped document, franked with the Adjutant-General's frank. The boys crowded around the receiver, and whilst he nervously tried to tear open the envelope, they gave vent to such expressions as these: "I told you so!" "Let's see the exact wording."

"We'll publish that." "Won't commercial operators be jealous?" "We'll have a good laugh on the anti-uniformers," etc. The receiver recovered from his nervousness, and succeeded in drawing forth—our own petition endorsed—"Respectfully returned to the writers. The Secretary of War will not permit any such uniform to be worn. [Signed] L. Thomas, Adj't. - Gen. U. S. A." "Oh, what a fall was there, my countrymen!" In the agony of deep-seated disappointment, stripes were torn from trousers, straw hats took the place of forage caps cap ornaments were at a discount, and priestified-looking coats, with black buttons, were the fashion in army telegraphic circles.

To bring the Navy-Yard at Washington into "circuit," it was necessary to run a loop, or two wires from there to the depot. As this connection had to be made in a hurry, the two wires were not as "taut" as they might have been, and the consequence was they frequently became twisted together, and navy-yard lost continuity. This was perplexing to the operator and annoying to Capt. Dahlgren. At times the twist, after having cut off navy-yard's communication for a few hours, would become untwisted by the wind; at other times it would be taken out by repair-men: this without the knowledge of the operator, who could not account for the mysterious disturbance. Capt. Dahlgren, commandant of the Yard, put up with the trouble for about two weeks, when his patience gave out, and he ordered the operator to discover the cause and report to him in writing. Mr. Operator, who was not a PARSON, had not a precedent to base his report upon, nor could his ready wit establish one, until the happy thought occurred that perhaps the enemy were tampering with the lines, whereupon he sat down and wrote a long-winded, highfalutin, poetic report to the Captain, stating, in the main, that after mature deliberation he was of the opinion that some enemy was tampering with the wires. The Captain read it, thought it of sufficient importance to respectfully refer it to the Secretary of the Navy, who in turn read it, indorsed the Captain's indorsement, and referred it over to the consideration of the Secretary of War. It soon found its way into the telegraphic department, where all hands had a good laugh over it, and it was laid away for a precedent. Here was a little matter which any messenger boy should have explained away brought before the two most prominent Departments of Government, and creating a tempest in a tea-pot.

Telegraphers' lives before the breaking out of this wicked rebellion were of a peaceful, quiet character. Broils wherein tests of strength were made they knew not of, therefore it is not to be wondered at that, when they first came into the army corps, they were a little nervous about being too near the point of danger without having means at hand to extricate themselves unharmed. This nervousness soon wore off, and now nowhere will you find men as thoughtless about danger as they. To illustrate this nervousness, let me here tell a little incident. On the night of May 23d, 1861, and the night before the occupation of Alexandria by the Federal troops, our operators at the Chain Bridge, Woodhouse and Jacques, seeing a great stir among the soldiery, preparations to depart, etc., imagined at once that our forces were preparing for an inglorious retreat instead of a victorious advance, and immediately telegraphed to Mr. Strouse "that something was up, and fearing a retreat had no means of escaping unless he sent them two horses immediately. Danger was at hand, and he alone could protect them from an infuriated enemy; their lives should be at his disposal if the necessary protection was forthcoming." The horses were not sent, nor were their lives sacrificed; on the contrary, they are to-day living, and as brave as any one need be.

As I have given an illustration of the nervousness, it is but just that I should give one as to how operators acted after the first fear was overcome. Great Falls was a Union picket post, where Federal troops watched rebel

movements on the Virginia side of the Potomac. Ed. Conway, a bold Canadian, was Government operator. One afternoon the U. S. pickets were withdrawn. The rebels thought it was a good opportunity to try the range of their guns; so coming in, a goodly number began to fire away at the telegraph building, wherein Conway was bewailing the condition of his finances. Shells flew thick and fast around the building—steps and porch were soon blown away, but Ed, cool as his native clime, heeded it not. They mixed a volley of musketry with the firing of shell, but this only caused him to gather up his three cents and a button, place them in his pocket, and to whistle "Johnny went for a sojer." A quantity of bullets came into his room unceremoniously, and as unceremoniously as they had come in he went to work digging them out of the partition to be saved as trophies. Only when the rebels began crossing the river did he consider it worth while to seek other quarters.

(To be continued.)

A friend who writes from "At Home," under date October 15, says:

"That ground-wire story in your last paper is good, and shows almost as much advance in the rugged path of science as did a *chief* operator the other day, who inquired of an operator whether the sounder would work without the relay!

"Another equally intelligent official was the president of a company, who, being in Albany, wanted to telegraph to Utica. The operator said he could not, as Schenectady had his ground on. 'Then, sir, tell Utica to tell Schenectady to take his ground wire off.'

"But when I sat me down, Mr. Editor, it was for the purpose of nailing to the counter a good story, and placing it where it belongs. This is the truth of it.

"Jack S— (all know Jack) and 'Brad' (everybody knows him) were on the cars one day, and being pretty full, were engaged in an amicable controversy on some abstruse question in philosophy or the use of the globes, and as Jack grew animated he also grew profane. A *domine* sitting behind tapped him on the shoulder, saying: 'Young man, do you know that you are on the road to destruction?' 'Just my d—d luck,' said Jack; 'I thought I was on the road to Boston.'

"That reminds me of a young lady, a city line operatress, an ornament to her sex and the profession at large, who coming to the word 'damn' in a message she was receiving, 'broke,' and told the operator she would not take that 'bad word.' In vain he tried to explain, in vain the manager ordered and threatened to discharge if she did not take it. Take it she would not, and was discharged accordingly. What an innocent creature, and yet so thoroughly *au fait* in cussin'!

"But talking about Jack, wont somebody give us his reasons for leaving his boarding-house in Albany. If nobody else does I will, on condition that you, Mr. Editor, tell the story of the same man when he was arrested for 'murder in the first degree, by golly!'

"Poor Harry S—, now dead and gone, being in Buffalo, and invited to a wedding, wanted a pair of white kid gloves to do honor to himself and the occasion. Now Harry was very bulky, and after mature deliberation and measurement of all the hands in the office with his own, found that No. 14s would be about the thing. He delegated 'Pop' T—, then in New-York, to procure the articles. Pop went to store after store without success, and at last in despair brought up at Stewart's, where, to his intense disgust, he learned that 14s was about ten sizes larger than they made them. He immediately telegraphed to that effect, adding as a postscript that he had found a man who would make him a pair provided a sheepskin was forthcoming.

"When railroads and telegraphs were 'gettin' all the go' in Pennsylvania, there was a group of Dutchmen in one of the interior towns engaged in a discussion of their merits anent subscribing for stock. At the last one old

fellow delivered himself in this wise: 'Poys, it won't to, you see. If the *tam* thing peaks down, dey will shust go to your fence und take rails to fix him up again.' This settled the question; no stock was taken that time. It was the same Dutchman's wife who did not want the telegraph to run by her door, as she did not want the whole country to know every time she spanked the children or gave the old man a blowing up for having too much *bier* aboard.

"There used to be a good story told of old Jim A—, but I would not tell it for the world just now.

"As I sit here, Mr. Editor, and think over old times and old faces, many a funny little story and many funny little scenes come to my mind. In the early days we were all brothers. I wonder if we love each other as well now? I wonder if the hard, stern logic of *facts* has not in a measure destroyed the *fancy* that in those days made telegraphing, with all its drawbacks, the most delightful business in the whole world? LENOIR."

A Port Henry correspondent writes as follows:

"We have some smart operators up our way. As an illustration of the fact I send you this. I met a young 'spring o' thunder' the other day, and after exchanging civilities with him I happened to notice his feet, which were of a 'peculiar' shape. 'Oh,' said he, 'when I was a "small boy" my folks were very poor, and we had a very small house, so there was not room enough to put beds for all of us; so my brother and myself had to roost upon a ladder at night and sleep in a *squatting* position, and it sprung my instep so that I have never been able to get a boot to fit me since!'

From Escanaba, Mich., we get the following:

"I would like to avail myself of your offer to publish "goaks" for the amusement of the brotherhood. This is a railroad line. We get time from Chicago each morning. One day a worthy brother asked the master mechanic of the road if 'he wouldn't like time every morning.' M. M. said yes, but wanted to know if the shops were not too far away—one-fourth of a mile. 'Oh, no,' said W., 'I can take a copy and send it up by Pat.' It was some time before he could 'see' what the boys were laughing at."

An Albany correspondent sends us the two following:

"Another good one of the same operator who 'adjusted a little for all day,' was unintentionally omitted in our last transmission. The superintendent of repairs of the then New-York, Albany, and Buffalo Company came to the station in charge of this *intelligent* operator to run the wires in better shape. As he brought in the galvanized wire from the street he asked the operator to make a connection to it with office wire. Hearing a filing and scratching sound while outside he came into the office to learn the cause, and there, to his astonishment, he saw the operator filing and scraping the galvanized wire at a furious rate. Asking him what his object was in doing that he replied: 'Why, I am getting that zinc stuff off in order to make a connection!'

The following "good one" of Hon. S. S—n, late President of the Hudson River Railroad, is told by an operator formerly employed by the above-named road at Hudson, N. Y.:

"Mr. S—n came into the office one day very much excited on account of a land slide, just occurred, and told the operator to "raise" Thirtieth Street station, N. Y., immediately. The operator informed him that Thirtieth Street was "calling" him then, and that he could not 'break' him. Mr. S—n replied: 'Well, tell him I want him.' 'But,' said the operator, 'I cannot break him.' 'Well, well,' said Mr. S—n, very excitedly, 'pound hard, pound hard!'

A New-Yorker furnishes us the following "good one":

"In the early part of the war a young man named L—, a sergeant in a Federal regiment then serving in Virginia (being a telegrapher), was detailed to take charge of a telegraph office at some point on the O. and A. Railroad.

It was customary at that time to call the roll of all the officers on the wire every half hour during the night. This was done by the night operator at the War Department Office. Mr. L— had an orderly whose business it was to wake him when the roll was called. The first night Mr. L— retired to his blankets with a feeling of security, having faith in the vigilance of his orderly. But half hour after half hour passed, till night gave way to rosy dawn, and still Mr. L— slept and still the patient orderly watched, but not a tick had been heard. At length Mr. L— awoke, and springing from his bed (the soft side of a board, with a blanket) demanded indignantly why he had not been awakened to answer calls. 'Sure, sir, and the machine never clicked once the live-long night' Mr. L— at once made an investigation and found that he himself had left his key open before going to sleep. Here was a predicament. Visions of a return to his regiment floated before his eyes; but he was a man of expedients, quick to plan and as quick to execute. Within ten minutes from the time he awoke he was on horseback and riding swiftly away armed with a pair of climbing spurs and pliers. In about half an hour he returned looking grimly satisfied. That morning the line men found the wire cut in two places a few miles from Mr. L—'s office, supposed to have been done by rebels. The joke was kept for a long time, and at length told by Mr. L— himself."

An English paper relates an unusually abominable telegraphic blunder. A gentleman sent a dispatch to Cambridge requesting a volume of prize poems containing "Johnson's Poem on Plato." As received, the message asked for "John Pomens on Plate Money," which the bookseller in reply deeply regretted his inability to find.

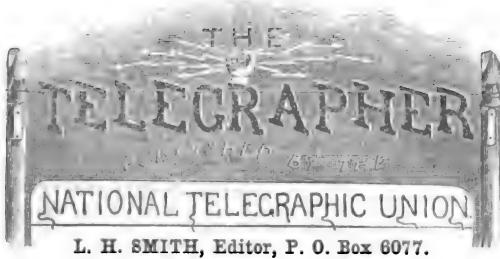
The cost of sending a telegraphic dispatch to Europe is illustrated in a story told of an ambitious young man from the country who, on a recent visit to Boston, was anxious to send a dispatch over the Atlantic cable—just for the fun of the thing. Gathering up all his loose change, he entered the Boston office and expressed his wish. Having written his message and handed it in, he laid his cash on the counter, exclaiming, "How far will this money pay for?" Quickly running over the money, the operator replied, "About an inch." The youth departed a sadder and a wiser man.

WE clip the following from *The Sun*:

"The preliminary steps toward building the International Ocean Telegraph Line are being taken, and the work will be pushed forward as rapidly as possible. Mr. W. H. Heiss, one of the oldest telegraph superintendents in the country, has accepted the important position of Superintendent of the International Ocean Telegraph Company, and sailed from this city on Saturday, the twentieth of October, for Florida, through a portion of which State the line is to be built. He will make surveys, and determine upon the route to be adopted. Several leading citizens and public men of Florida have suggested that the line be built from Fernandina to Cedar Keys, on the west side of the State, thence by cable to Havana. This will be determined upon by Mr. Heiss, if the practicability of the suggested route is made manifest by personal inspection and survey. It will not be many months ere the cities of New-York and Havana will be in telegraphic communication."

Mr. Heiss is accompanied by Mr. W. W. Sadler, formerly Superintendent of Repairs of the American Company.

At a banquet in honor of the laying of the Atlantic Cable, held in London, the title of knighthood was conferred by the Queen upon several of the leaders of the enterprise, and in a message she stated her reason for not conferring distinguishing marks of her regard upon Mr. Cyrus W. Field, which was, an apprehension that it might encroach on the province of his own government.



L. H. SMITH, Editor, P. O. Box 6077.

THURSDAY, NOV. 15, 1866.

ONE EVIDENCE.

It has been often asked, "What is the Union good for?" Its benefits have always seemed to us so obvious to a thinking mind that we have never endeavored to give a full explanation of our views. We have many times answered in a general way, that if Free Masonry is such a benevolent and excellent institution, why cannot another equally as good, but for a specific purpose, exist? We think it can if its component parts will but put their united strength to the wheel and push it gaily along. But telegraphers seem a chaotic mass of humanity, the several parts of which seem determined *not* to come together in a proper shape. Local or other jealousies, and a disinclination to apply themselves to any other work except the routine duty for which they are paid, has been one drawback to a perfect formation of the several Districts. A recklessness or supreme indifference as to their fate on the morrow is another. An improvident use of their salaries and a loose desire to taste the "bubble pleasure" are others.

We do dislike to call our fraternity selfish, and yet when we look back over the events of the last three years we are inclined to apply the word to them; yet it were wrong to have even the shadow of this spoken word move towards the many of Nature's noblemen who have "rattled the key" these many years.

What shall be said and thought of those of our profession who have joined our association and solemnly *pledged* themselves to support our organization, and after signing their pledges and paying the initiation fees have then neglected and even refused to perform their sworn obligations, unless perhaps fate or a Superintendent has turned against them, when they loudly clamor for aid, assistance, and what they choose to term their rights, and if these be not forthcoming quickly, sneeringly ask, "What is the Union good for?"

We have earnestly urged that money is power, and without this our efforts at reform or prayer for justice would be of little use. Money can become a power in two ways; first, getting it; second, saving it, so that it may be ready for use when needed. Let each member keep his dues paid up promptly, and let no member permit himself to ask for the benefits of the "sick-relief" clause, or of Sec. 2, Art. XI., of the Constitution, unless he really needs them. Nothing but severe and protracted sickness or a long inability to secure a situation would cause us to avail ourselves of these privileges. When needed they should be quickly and freely given, but when not needed they ought not to be asked for.

This is, however, a long preamble to our "Evidence;" and not altogether to that end, but it is something needed to be said now.

A well-known member of the Union, for the last two years connected with the Collins Overland Western Union Russian Extension Telegraph Expedition, has just returned home after a narrow escape from a death similar to that which overtook young Kennicutt, away up in the wilds of British North America. After a few months sojourn at Victoria and New-Westminster, he reached San Francisco, where, from no fault of his own, he found himself without money and among strangers. Then the California District, of its own generous will, came forward

and advanced him the money to pay his own passage and that of the leader of his dog-train home to this city. How and why he came in this plight we need not now detail. Our object in mentioning this matter is simply to give evidence of one good our organization has done. This member of the Union has reason to have a keen appreciation of its benefits.

Will any one now ask, after reading this and the Treasurer's annual report, "What is the Union good for?" Will not the harvest of the guillotine now being reaped teach us its good? We shall see.

We trust the echo of our lusty cheers for the California District will repeat themselves until they reach the ears of that goodly company beyond the Pacific slope. Long may they live and prosper. We hope no District on the Atlantic slope of the great chain will fail to return its warm thanks to its Pacific brother for this generous and beneficent act. Simple words fail to express our admiration.

TELEGRAPHIC MISCELLANEA.

At this writing the new edition of the Constitution as amended at the late Convention is out, and has been distributed to the several Districts according to the number of members. We have "positive" assurances from the Secretary of the committee that this is a more complete and correct edition than any ever published.

The Supplement to THE TELEGRAPHER containing the Convention Proceedings will be issued about the 15th inst. As the copy of these two works was prepared and the former printed in Boston, it will be readily understood, that *delay*, as heretofore in similar cases, has been a necessity, and is really no fault or negligence of the Editor of THE TELEGRAPHER, as was alleged last year.

Those wishing copies of the Supplement must send in their orders accompanied by seventeen cents for each copy.

THE Insulated Co. have recently opened an office at 11 Broad street, this city, and will soon open corner of Pearl and Beaver streets.

RUMOR says that the W. U. Co. will soon close their Branch offices at 21 Wall street, 22 Broad street, and corner of Beaver and William streets.

If it is true, as stated on good authority, that the Consolidated Company has limited its operators to one steel pen a week, what will the patrons of the telegraph do in case a pen breaks in the middle of the week?

If the customers carry off behind their ears the ten pens limited to them for a week's use, what will their followers do for a pen?

Now that the Consolidated Company save and sell all the waste paper, will it be returned to them from the mill with their water-mark in it?

"D. H. FRANK, N. Y."—Yes, the W. U. Co. have the right if they choose to exercise it, of discharging without notice any of their employés. The only question about the matter is, Is it justice? If a precedent could answer, it would be a loud no! We think tit-for-tat comes in play here as well as elsewhere. If they discharge without notice, an employé has the right to leave without notice, notwithstanding the exaction of one month's time.

BOUNDED copies of the second volume of THE TELEGRAPHER will be furnished at the following rates: Full Turkey, antique, beveled edges, \$7.75; half Turkey, antique back and corners, muslin sides, \$5.75. Full imitation of Turkey, same style as real Turkey, \$6.25; half imitation of Turkey, same style as the half Turkey, \$4.75. Common leather back, muslin sides, \$2.75, *cito*, paper sides, \$2.50.

We will undertake the binding of a few copies for those having the volume complete at \$6.25; \$4.25; \$4.75; \$3.25; \$1.25 and \$1.00 respectively.

It will take a month or six weeks to finish an order.

A REDUCTION of force and of salaries has recently taken place at 145 Broadway.

The Ceylon papers state that as soon as the Atlantic cable was laid, a captain of a ship which arrived at Point de Galle telegraphed to his owner at New-York, through the agents in London, but the answer was sent direct from New-York to Galle. The distance which the dispatch and reply traveled was twenty thousand miles, and the cost was \$250.

We desire to acknowledge the receipt of, and return thanks for several copies of *The Frederick* (Md.) Examiner. Our paper not dealing in politics, we cannot reprint the many "good things" we find therein for our side.

CHANGES, ETC.—Mr. J. L. Jones, for a long time connected with the New-York Central Railroad Telegraph service, and latterly employed in the Western Union Company's Albany Office, has left telegraphing to accept the position of Train Dispatcher on the Toledo, Wabash and Western Railroad. He is succeeded by S. J. Whyte.

Wm. J. Cull, an old and well-known line-man for many years in the service of both the old New-York, Albany and Buffalo, and the Western Union Companies, has resigned his position to engage in other pursuits.

"Willie" Mink, who has been employed in the Telegraph Department of the New-York Central Railroad at Albany for several years past, has given up his telegraphic profession, and accepted a clerkship in the Treasurer's Department of the above-named company.

Richard Gay, for some years past employed in the Greenbush Office, is now filling a position in the Albany Office of the Western Union Company.

E. S. Keep, Jr., has recently been appointed Manager of the Receiving and Book-keeping Department in the Albany Office.

Isaac Ford, of the "Un" Office, Troy, has been appointed Managing Operator of the Rensselaer and Saratoga Railroad Company's wire.

A smart young man and a good sound operator, well posted in everything pertaining to his business, and a member in good standing of the Albany District, is in want of a situation; is willing to go to most any part of the country. Address District Director Albany District.

J. C. Christie, late of the W. U. Co.'s Gx. Office, is now manager of the Insulated Co.'s Broad Street Office, this city.

Miss Frank S. Turner, for a long time a favorite operator at the W. U. Co.'s Dx. Office, has been engaged by the Insulated Co. as Manageress of their new office corner of Pearl and Beaver streets, this city. A good appointment.

W. H. R. Kelty, Postmaster at Frederick, Md., has been dismissed, he being a radical. Mr. Kelty will probably now console himself with telegraphy.

W. L. Biggert, the "triplet" of the late Convention, has had a third duty added to the two he has been filling so acceptably on the Louisville and Lexington Railroad. He is now Superintendent of Telegraph, Train Dispatcher, and General Paymaster of that road.

W. W. Ashley has been appointed Night Manager in the place of D. C. Roberts, who has been transferred to day duty at his own request.

E. J. Byrnes, who has been connected with the W. U. Office in Philadelphia for the past ten years, has resigned his position and gone into the dry-goods business in that city.

Richard F. Smith, formerly of the W. U. Co., takes charge of the Walnut Street Office, B. & B. Co., same city.

Mr. Fottrell, of Continental Hotel, has taken a position in the main office W. U. Co., and Wm. Buckwell, of the main office, relieves the former at the Hotel.

H. H. Ward has been appointed Managing Superintendent in New-York of the New-York, Newfoundland and London Telegraph Co. A. S. Brown assumes his duties as Manager of the W. U. Co.'s New-York Office. These are both good appointments, each gentleman being well fitted for his new position.

J. J. Flanagan, formerly of Louisville, is now Agent for the Southern Express & Telegraph Co. at Decatur, Ala.

PATENT CLAIMS.—58,439.—INDUCTION-COIL FOR ELECTRO-MAGNETS.—J. B. Lyon and Arnold Doll, Cleveland, Ohio: We claim, 1st, Making the coil for the main or direct circuit of two wires of dissimilar metals, as copper and iron laid side by side in alternation, as specified.

2d, Laying the coil for the induction current in two sections, of about equal length of wire, one section being upon the core of the coil, and the other upon the outside of the main coil, the two sections being of one continuous wire, as herein set forth, in combination with a primary coil composed of dissimilar metals, as specified.

58,562.—SIGNAL-CODE FOR ELECTRIC TELEGRAPH.—F. J. Bolton, London, England:

I claim the herein-described code of signals for communicating intelligence or transmitting messages by the electric or magnetic telegraph, and the method of arranging and complying the same, substantially as set forth.

58,960.—ELECTRO-MAGNETIC ENGINE.—Auguste P. Berlioz, Paris, France:

I claim, 1st, The shaft, F, divided into two insulated parts, turning in insulated boxes, D, D', and connected to the bobbin-wire or wires, t, all substantially as and for the purpose described.

2d, The combination of the above and the disks, G, their bobbins, I, and the rings, u, u', when the wires on said bobbins are connected to the shaft, to each other, and to said rings, substantially as shown in Figs. 2 and 5, for the purpose specified.

3d, The spring, o, its projection, n, and the roller, m, in combination with a ring, H.

4th, The spring, o', its projection, m', in combination with a ring, H'.

5th, The combination of two or more machines constructed as described when the said machines are so arranged that when their axles are coupled by the within-described devices, or their equivalents, alike currents will be simultaneously generated in all the machines.

58,745.—ELECTRIC GAS STOP-COCK.—John A. Heyl, Boston, Mass., assignor to himself and George H. Bailey, Hudson, Mass.:

I claim the above-explained improved cut-off, consisting of the stationary cylinder, G, and the rotary tube, E, provided with passages, a, b, arranged in them as described in combination with the ratchet, F, and the gas-burner conduit, the whole being substantially as and for the purpose and to operate as herein-before explained.

59,148.—TELEGRAPHIC SIGNAL.—Ralph A. Jones and Joseph Hedges, Aylesbury, England:

We claim an alphabet or characters composed of a long stroke used in conjunction with the "dot" and "dash" forming the several characters of the Morse alphabet, substantially as and for the purpose described.

We clip the following from *The Scientific American*: "The manufacture and sale of hair restoratives has always been a favorite with a certain class of public benefactors, whose disinterested labors have resulted in the foundation of many a fortune. We lately came across the specifications of an old English patent which will, perhaps, be interesting at a time like the present, when alcohol and bear's grease command such fabulous prices.

"This patent was for 'an apparatus for improving and restoring the human hair,' introducing a new feature in this line. By the plan of this inventor combs and brushes are to be constructed of different metals, so that when in use electric currents are given off; 'thereby the skin is caused to be stimulated, and a healthy action ensues, restoring the hair to its original color, and generally improving its appearance.' The same effect may be produced by having the articles formed partly of metal having batteries connected therewith when in use. As the patent claim long since expired, the above method is open to any enterprising individual wishing to experiment."

A HEART'S CONTENT correspondent of *The Boston Journal* says: "What amuses one at first in these houses is the inevitable baby or the twins in arms. There is a baby in every house, and cords of little children everywhere. But all the babies are of the same age. To be sure, as the young lady remarked, 'babies are always in season'; but it did seem strange that they should all be born about the same time at Heart's Content. The life of the fisherman may possibly account for this 'infant phenomenon.' At this season, for instance, all the boys and nearly all able-bodied men are at Labrador. They are absent all the summer. They return in the fall. And this annual crop of juveniles, as Tony Weller remarked, 'is the consequence of that ere maneuver!'"

SUPT.'S OFFICE, METROPOLITAN DIVISION, NEW-YORK, NOV. 1, 1866.

To Managers of Offices of Metropolitan Division:

In accordance with an order of the Executive Committee, you are hereby required to give bonds for the faithful performance of all duties assigned to you, and in particular to faithfully account for all moneys and property belonging to said company, to be disbursed or used for its account. I have prepared a statement setting forth the amount of bonds required from each of you, and it will be presented with bond for execution during the present week.

The company have consented to take the Fidelity Insurance Company, No. 170 Broadway, New-York, as bondsmen from those who desire to execute their bonds with said company as sureties.

J. C. HINCHMAN, Superintendent.

AMONG the uses to which the Atlantic cable has been put is one which would hardly be anticipated. A correspondent communicates to us a telegram which he received from a patient who, being seized with a renewed attack of an illness from which he had suffered in this country, and for which he had been successfully treated, telegraphed to his old medical attendant for directions. These were returned by the same channel without delay, and we hope they may have prospered, and that the proper remittance will follow by an early packet. This prescription will rank among the curiosities of telegraphy.—*London Lancet.*

WHEN Count Bacooiochi lay at the point of death he was visited by the Emperor Napoleon. The Count said to him, "I hope to obtain a concession from the Deity." "Laquelle?" inquired his majesty. "The establishment of a telegraphic line between heaven and the Tuilleries, so that I may always be able to remain in communication with your majesty."

THE Telegraph Office at St. Paul has been moved to the American Express Office, and will henceforth be found at that place.

E. Curry, Esq., has been appointed Manager of all the lines in the State of Minnesota. A well-deserved promotion.

CAPTAIN ANDERSON, the commander of the Great Eastern, has decided to accept the honor of knighthood, offered him by the Queen for his services in connection with the Atlantic cable.

THE alliance between Peru, Bolivia, and Chili are daily becoming strengthened by the introduction of such measures as uniform postal rates, telegraph lines, and other modes of intercourse. The "United Republics" of South America may yet form a union which shall rival in strength even the United States itself.

INTELLIGENCE received at St. Petersburg from Nikolajewsk announces that three ships had arrived there from Hamburg with material for the construction of the Russo-American Telegraph. The entire material was in good condition.

IT is reported in Valparaiso that the Argentine Confederation is anxious to enter into an arrangement with Chili for the construction of a telegraph between Buenos Ayres and Santiago across the Andes.

PLANTS grown under the light of the electric lamp show that their green color is equally capable of being produced under the influence of such light as under that of the sun.

ONE thousand miles of telegraph are now in operation in New-Zealand, while a sub-marine line, a branch of the great Anglo-Indian line, is to be completed next year.

A NEW line is being built by the oil men from the oil regions to Pittsburg, to accommodate their business to that city.

A BIG STORM.—The very severe storm which raged on the 10th, 11th, and 12th of October, destroyed a half mile of the Bankers' & Brokers' Co's line where it crosses the river at Ellicott's Mills, Md. The flood was so great as to prevent its repair until noon of the fourth day. The Insulated lines and nearly all of the American Co.'s lines were also destroyed.

The storm which raged on the night of the 29th of October destroyed all the lines out of this city running South and East except two or three wires of the W. U. Co. South. The Bankers' & Brokers' lines were destroyed, and interrupted in four places on the following day. The Insulated were totally interrupted East and South. The Western Union East of here and South of Philadelphia, and partly between that city and this. The Franklin line was also prostrated. A more complete prostration has not occurred since 1864, when the great flood put telegraphing at a stand-still for several days.

THE RECEIVING DEPARTMENT of the Western Union Telegraph Company's Office at Philadelphia has been removed to the adjoining building, formerly occupied by the U. S. Co. The new office is fitted up tastefully, and is arranged with a due regard for the convenience of the employés as well as the business public.

A UNITED STATES Company has got the consent of the Emperor of China to lay a cable from the Western Union Extension Company's lines on the North to Shanghai.

SALES OF STOCK.—The W. U. sold on the 18th inst. at 50¢. The Bankers' and Brokers' at 9½, and the Insulated at 15. No sales of Russian Extension have been made for several days.

NEWS from the Russian-American Telegraph expedition says that the Russian corvette Varioig sailed on the 6th of August for the Amoor River, having on board Count Ponosoff. The Varioig reached Ghyliga August 15, and sailed four days after for Ochotsk.

Major S. Abasa, chief of the Russian portion of the expedition, had explored the route, and determined in regard to the position of the lines between Ghyliga and Ochotsk.

Captain Manhood had explored the route between the mouth of the Amoor River and Ochotsk, and joined Major Abasa at the latter point.

Various explorations had determined the route between Behring Sea and the terminus of the line at the mouth of the Amoor River.

Timber was plenty, and four hundred poles (!) were expected to be ready before the close of the present season.

The natives were very friendly along the whole route, and offered the use of their dog-trains to assist in transporting materials, and have contracted to supply any amount of reindeer meat.

Major Abasa has purchased a large number of dog-teams, and established fisheries to supply the dogs with food.

The Russian Government officials have rendered every facility to the expeditionists without awaiting instructions from St. Petersburg, and Count Ansoff has issued orders to all officers to render any service necessary for the completion of the line.

When the necessary material is received the work will be pushed forward with great rapidity.

MARRIED.

At Bloomington, Ill., at 8 o'clock in the evening of Oct. 18th, at the residence of Mr. C. Toma, Hiram F. Keith, of Bloomington, to Miss Louise Clawson, of Alton.

At St. John's Church, Utica, on Thursday, Oct. 25th, by the Rev. Father Daly, D. W. McAneny, of New-York, to Miss Nellie E. Lumbard, of Utica.

On Thursday, P. M., October 18th, at St. John's Church, Detroit, Mich., by the Rev. John K. Dunn, George B. Cowlam, of Chicago, to Mary McGregor, of Hamtramck. No cards.

DIED.

In Bloomington, at 12 o'clock on the night of the 18th Oct., Hiram F. Keith, aged 29 years, after a lingering illness, of typhoid fever.

THE TELEGRAPHER.

THE ATLANTIC TELEGRAPH.

BY GEORGE LANSING TAYLOR.

I.

GLORY be to God above!
The Lord of life and love!
Who makes His curtains clouds and waters dark;
Who spreads his chambers on the deep,
While all its armies silence keep.
Whose hand of old, world-rescuing, steered the ark,
Who led Troy's bands exiled,
And Genoa's godlike child,
And Mayflower, grandly wild,
And now has guided safe a grander bark,
Who from her iron loins
Has spun the thread that joins
Two yearning worlds made one with lightning spark.

II.

Praise God! praise God! praise God!
The sea obeyed his rod,
What time his saints marched down its depths of yore;
And now for Commerce, Science, Peace,
Redemption, Freedom, Love's increase,
He bids great ocean's barriers cease;
While flames celestial flash from shore to shore!
And nations pause 'mid battle's deadliest roar,
Till earth's one heart swells upward and brims o'er
With thanks! thanks! thanks and praise!
To Him who lives always!
Who reigns through endless days!
While alleluias sweet
Roll up as incense meet,
And all earth's crowns are cast before his feet!

III.

"And there was no more sea,"
Spake in wrapt vision He
Who "a new heaven and new earth" beheld.
And lo! we see the day
That ends its writhing sway,
And weds the nations long asunder held!
Ten years of toil, of failure, fear,
Thousands to scorn and few to cheer.
What are they now to ears that hear,
To eyes that see their triumph near?—
When lightning flames the ends of earth shall weld,
And wrong and right, by lightning beams dispelled,
Shall lift from all man's race,
And God the Father's face
Shall smile o'er all the world millennial grace!

IV.

Franklin, and Morse, Field,
Great shades of centuries, yield!
Make way for these in your sublimest throng!
Heroes of blood, great in immortal wrong,
Stoop your helmed heads and blush! O seers of song!
Of blood and strife no longer sing;
In heavenlier transport smite the string,
Soar, soar on purer, rarer wing,
Till all the throbbing azure ring
The song that erst began:
"Good-will and peace toward man!"
Redeemed and bought with blood,
One mighty brotherhood!
And every bond that brings heart nearer heart,
Shall bring man nearer God, and bear a part
In that great work benign—
The work of love, that makes all worlds divine!

Christian Advocate.

THE ATLANTIC TELEGRAPH.

IMPORTANT REDUCTION IN TOLLS.

The following official notice announces a reduction of fifty per cent in the Atlantic Telegraph tariff:

"NEW-YORK, October 26, 1866, {
No. 145 Broadway. }

"Mr. D. H. Craig, General Agent of the Associated Press:

"DEAR SIR:—It gives me pleasure to inform you, and through you the public, that on and after the 1st day of November, the tariff on all messages passing through the Atlantic cable will be reduced fifty per cent.

"Very truly your friend,
"CYRUS W. FIELD."

Messages Between London and Vancouver's Island.

An exchange of courtesies passed between the Mayor of Vancouver's Island and the Lord Mayor of London, by tel-

egraph. The first message was received at Mansion-house, London, on Friday night, Aug. 3, and was in these terms: "Franklyn Mayor, Vancouver, July 31, to Lord Mayor, London:

"The infant colony, Vancouver, eight thousand miles distant, sends telegraphic cordial greeting to mother England."

To this the Lord Mayor of London replied by telegraph as follows:

"To the Mayor of Vancouver's Island:

"Mother England acknowledges the cordial greeting of her infant son, Vancouver. May peace, good-will, and unanimity unite and prosper our happy family."

It will be observed that the three days were occupied in the transmission of the messages between Vancouver's Island and England. It was carried across the Continent of America to Newfoundland — how far by telegraph does not appear. Seven hours, or thereabouts, were spent in conveying it by steamer from the American coast to Newfoundland, a distance of seventy miles; from twelve to fourteen hours thence by the Atlantic Cable to Valentia, and thence to London about an hour more, making three days and nights, or seventy-two hours. Altogether it must have traveled, taking the whole route, at the rate of upward of one hundred and eleven miles an hour, but in the seventy miles from the American shore to Newfoundland it could only be conveyed at the rate of ten miles an hour.

The Northumberland Strait Cable.

THE cable across the Straits of Northumberland, connecting Prince Edward Island with New-Brunswick, from Cape Traverse to Cape Tormentine, was successfully laid and completed on Tuesday, October 2. The work was greatly obstructed and delayed by rough weather, and occupied from Saturday, Sept. 29, until Tuesday, Oct. 2.

The Terrible and Medway, which were engaged in the expedition, immediately started for England. Mr. Charles Hyndman, Superintendent of the Prince Edward Island Telegraph Company, who was on board one of the steamers, was carried away, and put ashore at the Gut of Canso.

NEW LAND LINES IN NEWFOUNDLAND.

A meeting of the directors of the New-York, London, and Newfoundland Telegraph Company, took place on Wednesday evening, October 3, at Mr. Cyrus W. Field's house, in Gramercy Park Place, New-York, to take into consideration the propriety of constructing a new land line in Newfoundland.

The Directors unanimously endorsed the action of Mr. Field, and ordered the immediate construction of a new line besides the thorough repairing of the old one. Instructions were sent in accordance to Mr. A. M. McKay, Superintendent of the Newfoundland lines. Efforts are also being made to have new land lines along the whole route between New-York and Heart's Content.

The Condition of the Atlantic Cable.

The following interesting letter has been published in *The Railway News*:

"VALENTIA, September, 1866.

"MY DEAR SIR:—You have doubtless received through Mr. McCurley the certificate of the completion of the cable of 1865. I have since been engaged in repeating all the tests of both cables at greater leisure; the results are most satisfactory, and bear ample testimony to the great care and skill which must have been bestowed upon them at every yard and in every stage of their manufacture. The insulation of the 1865 cable is even better than that of the 1866, but this is doubtless attributable to its having been longer submerged—time having the well-known effect of improving the quality of gutta-percha. The cable of 1866 has, however, also so greatly improved since it was submerged in July last that it is doubtful which will ultimately prove the better. The perfection of the insulation of these lines is very gratifying, and

must certainly appear surprising to any who are not aware of the great advances which have of late years been made in every branch of telegraphy. If either of the cables, for example, be disconnected from the earth, and charged with electricity, it requires more than an hour for the half of the charge to escape through the insulating covering to the earth. With a single galvanic cell, composed of a few drops of acid in a silver thimble, and a fragment of zinc weighing a grain or two, conversation may readily, though slowly, be carried on either through one of the cables or through the two formed together at Newfoundland so as to form a loop, and, although in the latter case the spark, twice traversing the breadth of the Atlantic, has to pass through three thousand seven hundred miles of cable, its effects at the distant end are visible on the galvanometer in a little more than a second after contact is made with the battery. The deflections are not of a dubious character, but full and strong, the spot of light traversing freely through a space of 12in. or 18in. on the scale, and it is manifest that a battery very many times smaller would suffice to produce similar effects. The length of the 1865 cable is 1896.48 nautical miles, being thirty-eight miles longer than that first completed, but there is no apparent difference in their speed of working. The clerks are rapidly gaining experience and confidence in working, and have in some short and exceptional trials attained a speed of even seventeen or eighteen words per minute. Judging from the experience afforded by other cables, and from all that is known of the character of the bottom of the Atlantic, there appears every reason to expect that these cables will maintain their electrical perfection through a long series of years.

"I am, dear sir, yours faithfully,

(Signed)

"LATIMER CLARK.

"To George Saward, Esq., Secretary Atlantic Telegraph Company, London."

Honors to Cyrus W. Field.

ONE evening last month a dinner was given to Cyrus W. Field by the Directors of the New-York, Newfoundland and London Telegraph Company.

The following remarks upon the great work which is at last accomplished were made by Mr. Peter Cooper:

"GENTLEMEN:—Nearly thirteen years have passed since Mr. Taylor, Mr. Roberts, and myself met for four successive evenings around a table in the house of our mutual friend and guest, Mr. Cyrus W. Field. We met there to consider the propriety of undertaking a work intended to connect our country with the European world. I would gladly, if I could, put in form and give expression to some of the thoughts and feelings that have occupied my mind and those of my associates, among whom I am proud to see my esteemed friend, Wilson G. Hunt, who joined us at a later period, and has taken part with us during these long and anxious years through which we have passed. In those eventful evenings we became fully magnetized and infatuated with a most magnificent idea. We pictured to ourselves that in a short time we should plant a line of telegraph across the vast and mighty ocean.

"We as little dreamed of the difficulties at that time that we were destined to encounter as did the Jews of old dream of the difficulties they were doomed to meet in their passage to their promised land. We, like the Jews of old, saw the hills green afar off, and like them we had but a faint idea of the bare spots, the tangled thickets, and rugged cliffs over and through which we have been compelled to pass in order to gain possession of our land of promise. We have, however, been more fortunate than the Jews of old; we have had a Moses who was able to lead on his associates; and when he found them cast down and discouraged he did not call manna from heaven, nor smite the rock, but just got us to look through his telescope at the pleasant fields that lay so temptingly in the distance before us, and in that way he was able to inspirit his associates with courage to go on until at last, with the help of the Great Eastern, and the means

and influence of the noble band of men that Mr. Field has been able to enlist in the mother country, we have at last accomplished a work that is now the wonder of the world. In the accomplishment of this work it is our privilege to regard it as a great and glorious means for diffusing useful knowledge throughout the world. One thing is certain, that the millennium will never come until knowledge shall cover the earth as the waters cover the great deep. An ocean telegraph has now become an open way through which flashes of intellectual light can pass to and fro through the earth with the speed of lightning, carrying with it the knowledge of all that is calculated to elevate and bless mankind. I trust our united efforts will hasten the glorious time when nations will learn war no more, when they will beat their swords into plowshares and their spears into pruning-hooks. I trust our own country and Government will always stand as a bright and shining light in the pathway of nations, to cheer on with hope the suffering millions of mankind who are now struggling for life, liberty, and happiness—a happiness that is possible to men and nations who will cultivate the arts of peace, instead of wasting their energies in wars of mutual destruction. Let us hope that the day will soon come that will secure peace and good-will among the nations of the earth."

Mr. Cooper concluded with a toast to "The health and happiness of our Moses, Mr. Cyrus W. Field."

DISTRICT PROCEEDINGS.

St. Louis District.—Regular meeting, September 9th. Minutes of last meeting approved.

J. C. Watts and John E. Nagle were proposed for membership.

The committee appointed to investigate character, etc., of H. S. DePew, T. J. Whitehead, and W. H. Davy, reported favorably, and they were elected.

On motion, rules were suspended in favor of J. C. Watts, and he was elected a member.

A resolution was adopted thanking Mr. C. W. Temple for favors shown our delegates to the Convention.

The following resolutions were also adopted unanimously:

"Resolved, That in the opinion of this District the warmest thanks of the Union are due to Mr. L. H. Smith for the able and efficient manner in which he has performed his duties as Editor of THE TELEGRAPHER from its first issue to the present time, for his fidelity to our cause, and for the earnest manner in which he has labored for its interests.

"Resolved, That we would respectfully recommend his reelection as Editor by our Convention; but if in the opinion of the Convention it be necessary to preserve harmony and good feeling in the Union that some other person be placed in charge of our paper, we will, ignoring all preferences, extend to him a hearty support in the discharge of his duties."

Adjourned.

REGULAR MEETING, October 14th.

The District Secretary being absent, the chair appointed C. E. Dywer Secretary *pro tem.*

Minutes of previous meeting approved.

Applications for membership were received from J. H. Mellen and M. Höhl, and committee appointed to report upon their cases at the next meeting.

The committee in the case of John E. Nagle reported favorably, and he was elected a member.

The District Treasurer presented his local report, which was approved and ordered to be placed on file. He also presented with his report a communication showing that there were quite a large number of members in this District subject to suspension or expulsion for non-payment of dues. He stated that he had written to them frequently and used every means in his power to collect these dues, but had been unable to do so, and recommended that the District take them in hand and compel them to pay up or subject them to the penalties provided by the Constitution.

On motion, a committee was appointed to notify them that unless payment was made before the next regular meeting their cases would be then acted upon as provided by the Constitution.

Mr. McKenzie (the only member of the delegation present) made quite a lengthy and interesting report of the proceedings of the late Convention.

The resignations of C. A. Paxson and N. C. Pamplin were presented and accepted; the former to date from July 1st, 1866, and the latter from October 1st, 1866.

The District Director announced that Mr. Pamplin having resigned his membership in the Union, the District was without a Secretary, and ordered an election to fill the vacancy. A vote was taken and C. M. Dywer declared elected. Meeting adjourned.

HARRISBURG DISTRICT.—Regular meeting, Oct. 3d. Quorum present. Minutes of last meeting approved. District Director inquired for report of Committee on Delinquents. Reported progress. Committee instructed to report finally at next meeting.

Treasurer's report accepted.

By request, A. R. Keifer, substitute for delegate to the Convention, made report of the doings of Convention. No further business. Adjourned.

CALIFORNIA DISTRICT.—Regular meeting, October 7th. Minutes of last meeting approved.

Some remarks were made by Director in relation to a published statement over name of A. Bruckman, dated New-Westminster, B. C., in July, which contradicts the minutes of a meeting of this District held February 18, 1866.

Mr. Urquhart stated the facts of the case as near as could be obtained, which showed the matter to be a mis-understanding occasioned by neglect of Mr. Bruckman in not notifying the District officers of his remittance.

The following names were proposed for membership: H. H. Unruh, by J. W. Sweeney, and George Hare, of San José, by Mr. A. Post. Both of them were unanimously elected.

Resignation of Mr. T. P. Hodgdon was read and accepted. Adjourned.

LOUISVILLE DISTRICT.—Regular meeting October 15th. Minutes of last meeting approved.

Treasurer's report placed on file.

Mr. S. P. Peabody was received as a member of this District. Transfer from St. Joseph District to date from September 18th, 1866.

Mr. Wm. V. White granted the privilege of withdrawing from the Union, to date from July 1st, 1866.

A vote of thanks was tendered Mr. Samuel Gill, Superintendent of Louisville, Frankfort and Lexington R. R. Mr. E. Woodward, Superintendent of L. M. & C. & X. Road, Mr. D. C. V. Caldwell, of Central Ohio Road, and Mr. J. S. Nelson, of B. & O. R. R., for kindness shown Mr. W. L. Biggert, our delegate to the annual Convention at Baltimore.

Also resolutions of thanks to members of the Baltimore District for the cordial reception they gave our delegate.

Vote of thanks to W. L. Biggert for the able manner in which he represented our District and stood by our Editor (Mr. Smith).

After transacting some other business of minor importance, adjourned.

WASHINGTON DISTRICT.—October 22. Special meeting.

Wm. H. Young, having received a majority of all the members of the District, was declared elected District Director.

November 3d. Regular meeting. Prof. Henry was present by invitation, and delivered a very interesting and instructive lecture on magnetism. The Professor has expressed his desire to favor the District with another lecture at an early day.

DETROIT DISTRICT.—Because the proceedings of this District are not published with every edition of THE TELEGRAPHER its friends must not assume it "exists only in name." Its regular monthly meetings are well attended, and will continue to be. Since last heard from the following, with considerable local business, has been transacted:

The resignation of Mr. B. T. Hutchinson has been accepted, and that gentleman embarked for Cape of Good Hope.

O. H. Lincoln was expelled for non-payment of dues.

A committee of three, appointed by the chair, consisting of Messrs. A. Fox and E. Winter, of Detroit, and Thomas Prest, of Windsor, C. W., to solicit subscriptions and advertisements for THE TELEGRAPHER.

After expressing thanks to Messrs. C. Fox and Corbett for aid and counsel the District Director reappointed them as his counsel for the ensuing year.

Mr. James A. Johnson, of Windsor, elected member of the Union.

Mr. A. H. Reese made an interesting report of the proceedings of the Convention, and the following was adopted:

"Resolved, That the thanks of this District are due and are hereby tendered to Mr. A. H. Reese for his able, concise, and interesting report of the proceedings of the Convention, as well as for his arduous and untiring services in behalf of the association."

Hour of meeting changed from 4 to 2 P. M.

Motion to change fine on absentees from 25 to 50 cents lost, and following adopted:

"Resolved, That the thanks of this District are due and are hereby tendered to the members of the Baltimore District for the generous and hospitable manner in which they entertained the delegates from this District while attending the late Convention."

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VICE-PRESIDENT—F. G. CHURCHILL, Laporte, Ind.

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BEGINNERS.

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The Telegrapher:

PUBLISHED BY THE
NATIONAL TELEGRAPHIC UNION.

THE UNION is an association of telegraph operators, for their own mutual benefit and support, and THE TELEGRAPHER is published to disseminate information among its members, as well as general telegraphic news.

THE TELEGRAPHER is published in New-York, on the first and fifteenth of every month, and besides matters of associate interest, is devoted to the interests of telegraphers all over the world, and will contain telegraphic information from all parts of the globe.

It is not confined to any one policy, but will seek to correct abuses, give honor and praise wherever and whenever due, and endeavor to elevate the standard of operators, both morally and scientifically.

It will not support any one person or corporation, but will aim to treat all alike, censuring either or both, when merited, and praising alike when praise is won.

Its columns will not be open to any one for personal abuse, nor for personal profit at the expense of others, nor will it contain anything that the most fastidious would not read.

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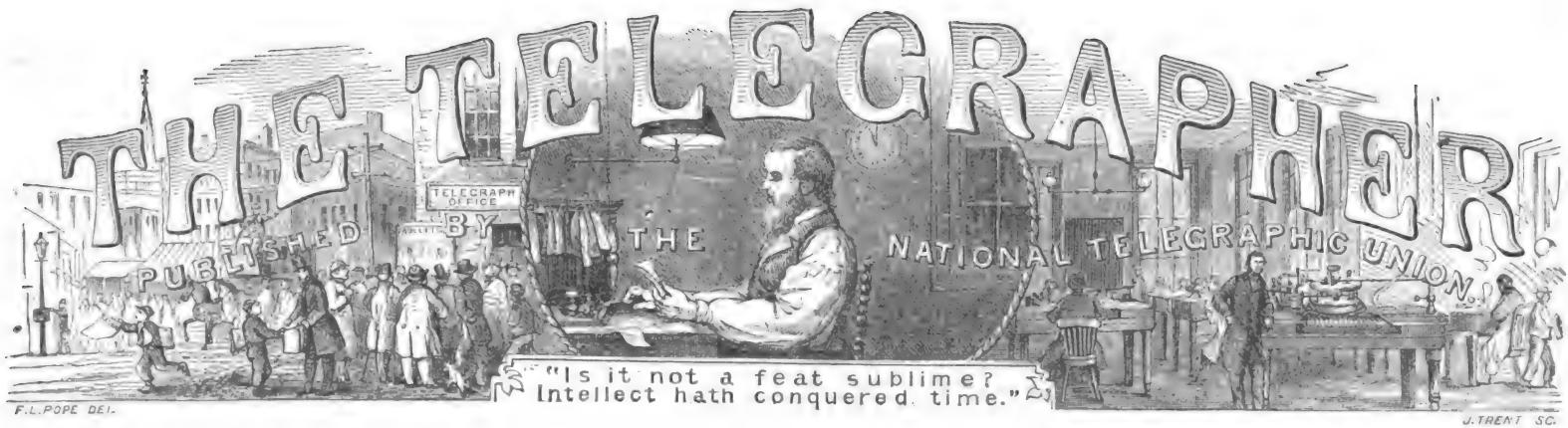
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Vol. III.

New-York, Saturday, December 1, 1866.

No. 41.

THE ATLANTIC CABLE INSTRUMENTS.

I.

THE TRANSMITTING APPARATUS.

We have great pleasure in presenting to the readers of *THE TELEGRAPHER* a description and illustration of the apparatus employed in the transmission of communications through the Atlantic cable. This instrument is the joint invention of those eminent English electricians, Cromwell F. Varley and William Thompson, and by its means a greater number of elementary signals can be obtained through a long submarine conductor than by any other known system.

Most telegraphers who have devoted any attention to the subject have a pretty good general knowledge of the nature of the difficulties attending the working of submarine cables of considerable length. If one pole of a battery is connected with the earth, and the other to an insulated aerial line, even of a great length, the current almost instantaneously reaches its maximum intensity at the remote end, and no portion of the electricity is taken up statically, the wire having practically no "electro-static" capacity; that is, capacity for retaining electricity in a state of rest. For the same reason, on breaking the battery contact the signal at the distant end ceases. The wire holds no electricity, and consequently, directly the supply from the battery ceases, the signal at the distant end also ceases. Thus signals of the shortest duration can be sent in rapid succession without interference, as may be seen in the case of the House instrument when in operation.

In the case of a submarine cable we have a conductor which, though it may give no greater resistance to conduction than a given land line, has an enormous "electro-static capacity," and when a battery is placed in connection the electricity generated is partly taken up in satisfying this electro-static demand, and an appreciable time passes before even a current of the feeblest strength is manifested at the distant end, and a considerable time would elapse before the current arrived at its maximum strength. Upon breaking the circuit of the battery, the electricity thus held statically, or stored up in the conductor, must be discharged from it at both ends, and thus the signal is continued at the distant end long after the circuit is broken at the battery. Thus the signal

continues for an unnecessary length of time, and consequently delays the sending of the next one. It will, of course, be understood that in working submarine lines the sending station *only* has a battery in connection with the line.

The first improvement in the working of submarine cables consisted in sending a reverse current of less power when a signal was to be terminated, thus in a measure neutralizing the charge instead of merely allowing it to pass into the earth at the two ends of the cable. This method was patented by Mr. Varley in 1854, although, as usual, there are other claimants to the merit of the invention.

By the results of the experiments which have been made with the improved system of Messrs. Varley and Thompson, it appears that still greater rapidity of signal-

however, are of little importance, and do not in any manner affect the principle of working.

The apparatus consists of an axle, A, A, Figure 1, driven by clock-work at a uniform speed. Two cams, one of which is seen at B, Figure 2, and which are shown separately in Figure 4, are loose upon this axle, but revolve with it by means of a friction arrangement, F, somewhat similar in principle to that of the House printing instrument; or are arrested and prevented from revolving at will by means of a catch, G, Figure 2, dropping into the notch, g, of the disk, D, Figure 4, which moves with the cams. This catch is acted upon by the two levers, P, N, which constitute the sending keys. When the keys are at rest, the axle, A, A, revolves continuously, the disk, D, and the cams, B, B, being held fast by the catch, G. On pressing either of the keys down the catch

is lifted and the cams are released and revolve with the axle. Each single revolution of the cams makes one signal. This is effected in the following manner: Over each cam is a straight spring, e, l, Figure 1, which is raised by the uncut part of the cams as they revolve. The spring, e, is connected with the earth by the terminal binding screw, E, and the spring, l, to the line by the terminal, L. When the keys are at rest the cams are in such a position that neither of these springs are raised (see Figures 4), and they thus both come in contact with another and lower spring — which is provided with platina contact points, and connected with a commutator or switch at J and J' (Figures 2 and 3). The upper spring, — which the "line" or "earth" spring, touches when raised by the cams, is in connection with another part of the commutator at H and H'. Thus, while the keys are not at rest, the "line" is connected to "earth" through the lower spring — and one pole of the battery is also connected to "earth" through this lower spring, the other pole being insulated.

The depression of one of the two keys, whilst it liberates the cams, thus allowing them to revolve, also acts on the commutator. Thus, if the key, P, be depressed the commutator takes the position shown by Figure 3, the positive pole of the battery being in connection with the upper spring, and the negative with the lower; and the key, N, produces the reverse effect. The cams are so

Fig. 2

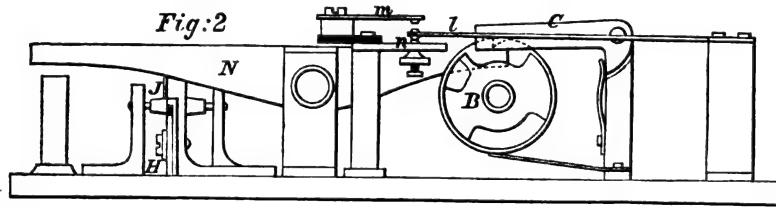


Fig. 1

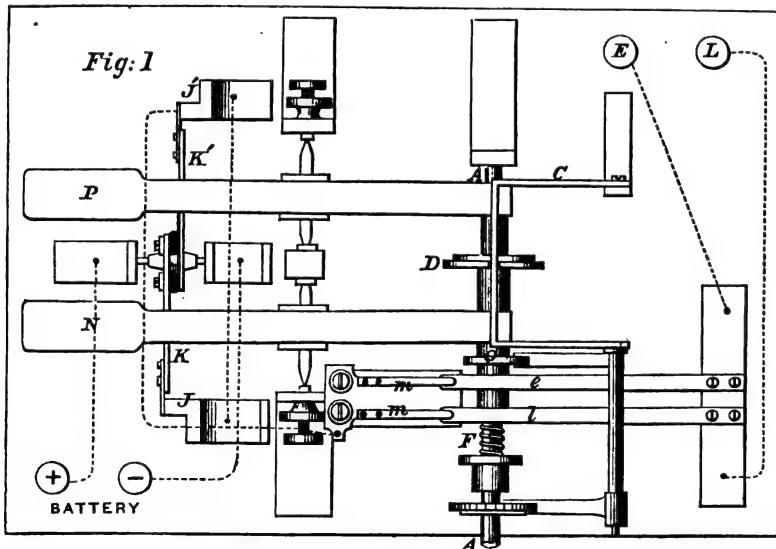
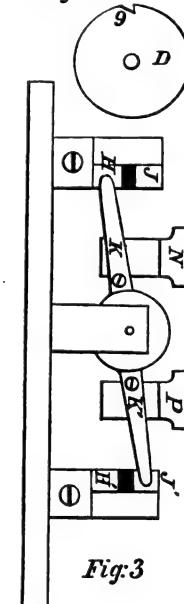


Fig. 4.



Fig. 3



ing is obtained by sending first a current, then a reversed current of equal power for a longer period, to neutralize the first, and then another short current in the same direction as the first. Sometimes a still greater number of alternate currents are sent up to the number of five or seven, which are the numbers now used on the Atlantic cable.

The accompanying drawings show the mechanism used for producing this effect, and will, we trust, make our description perfectly clear. It is proper to state, however, that in using this instrument upon the cable it has undergone some slight modifications. The differences,

cut that for the first small portion of their revolution neither of them acts upon the two springs above them, thus leaving the "line" connected to "earth." With the exception of this portion thus cut away in both, the two cams are the converse of each other, that is, when one is cut away the other is not, as may be seen by a careful inspection of Figure 4. Thus when one raises its spring above it the other does not. For instance, when the "line" spring, *l*, is raised so as to be connected through the upper spring—to one pole of the battery, the "earth" spring, *e*, is not raised, but remains in contact with the other pole of the battery. The cuts and projections of the cams are so arranged that the first contact of the line with the battery is of a certain duration; the next contact is of a longer duration, and of the reverse polarity; the next is less than the first, and of the same polarity; the next is again reversed, and is less than the third; and the fifth is reverse to the fourth, and of still less duration. This will be understood by a careful inspection of Figure 4.

Whatever position the commutator is put into by the depression of one key is reversed by depressing the other key, and thus the order of the currents sent is reversed. That is, if the first key leaves the commutator so that the cams begin by sending a *positive* current, when the second key is depressed the cams will begin by sending a *negative* current. A snail, *Q*, releasing a spring, *O*, Figures 1 and 4, causes a click at the completion of each revolution, and thus indicates when the depressed key may be released and another signal commenced.

The total effect of all this mechanism is that by pressing down one of the keys the succession of contacts made by the revolution of the cams gives a single signal—positive or negative as the case may be—at the receiving end of the cable; by the deflection of a delicate galvanometer, and by pressing down the other key, a deflection in the reverse direction is obtained. This gives two simple signals, and these can, by reason of the effect of the reversals, be produced in more rapid succession than by any other known means. In transmitting through the Atlantic cable it is understood that the ordinary European Morse alphabet is employed—deflections in one direction representing the dashes, and those in the reverse direction the dots.

The intensity of the current actually produced at the distant end by this arrangement is only a fractional part of the permanent maximum current; that is, the current which would be produced if the battery were allowed to act for an indefinite period.

On the relative duration of the successive reversals to one another depends the percentage of the maximum current which will be produced at the distant end, and also the rapidity with which the successive signals can be given.

Thus the instrument shown in the drawing gives contacts of the following duration: +100—156+80—32.5+26, and produces a current at the distant end equal to the hundredth part of the maximum current. The amount of percentage of the permanent current, giving the best results, differs with different cables, and must be determined by the electrician in the case of any particular cable.

The instrument stands upon four legs, about three and a half feet high. Beneath the table is suspended a metronome of improved construction for governing the speed of the cams, which is wound up when necessary by a treadle worked by the foot of the operator.

For the accompanying drawings and much valuable information in relation to the working of the instrument I am indebted to *The London Engineer*.

A description of the receiving apparatus of the Atlantic cable will appear in the next number of THE TELEGRAPHER accompanied with illustrations.

F. L. P.

THE Morse instrument was introduced on the Indian telegraph lines in 1858.

PICTURES FROM A TELEGRAPHER'S WINDOW.

THE DRAMA OF A DEAD-HEAD.

A DEAD-HEAD is a peculiar being, who gets that done gratis which he ought to pay for. He is the boon-companion of all the caterers who would like to shake him, but cannot for the reason that he will not be shaken. He will order a hundred-dollar dinner at Delmonico's and insist that he ought not to pay for it; first, on the ground that he cannot if he would; and, secondly, that he is a dead-head by profession and is not expected to pay for anything. Sometimes the dead-head is a poet, who, having no other visible means of support, rhymes for a subsistence—like,

"Little Tommy Tucker
Singing for his supper."

(Mother Goose is responsible for the bastard rhyme in the quotation.) Sometimes, in fact more frequently, the dead-head is a professionally-defunct newspaper-man, who plays the dead-head on the ground that the world owes him a subsistence and he is bound to dun the world until it pays up.

Now to make a good dead-head and to succeed capitally in the business of dead-heading several qualifications are absolutely necessary:

1. The dead-head must be troubled with no small scruples of conscience. He must be profoundly impressed with the meaning of the Shakespearean simile, viz.: "The world's mine oyster," and with the sword of dead-headism must he open it, and with the *gusto* of a dead-head must he savor it.

2. He must be endowed with an especial sublimity of self-consciousness. He must say to himself, in soliloquy, after the manner of Hamlet, the Prince: "I am, and these are but my puppets; they are the shuttlecocks whereto I play the battledore; I am the Napoleon, for whom Delmonico and Maretzke must play Moscow, and submit to feed me, or burn their Ephesian domes." This the dead-head must say to himself, and, thus saying, he will succeed. No lesser sublimity of self-consciousness would be a thing befitting the profession of a dead-head.

3. He must have unusual capacity for boring people without seeming to be aware that he is boring anybody or seeming to be aware that anybody seems to be bored. To be deficient in this quality would be to render the former too nugatory; since there be those who will deny that they form any part of his oyster, that he has any right to devour them or any part of their substance, that they are shuttlecocks for his battledore, or that they dwell in any corner of that Moscow unto which he plays the Napoleon; and these people, who deny, must be argued into the conviction that they really are what they declare and maintain that they are not, viz., portions of the dead-head's own proper oyster.

4. The dead-head must be a person of gentle and lofty manners. He must say unto the sea as did King Knute: "No nearer my royal person!" In other words, he must overawe the oyster which he is to open with a profound sense of his dignity; he must overwhelm the said oyster with the benignancy of his courtesy; he must persuade his oyster that it is a very high honor for an oyster to be opened and eaten by him. Otherwise the oyster might refuse to be opened, might wriggle and squeal when he inserted the sword; and, in this case, he would be compelled to leave the oyster unopened.

Now, this is a veritable crayon of the true metaphysics of dead-headism; and with these qualities or the bumps resulting therein fully developed, the dead-head is certain of success in his profession.

And now to my painting or *tableaux*. Enter dead-head—as they say who wear the buskins—enter dead-head with a telegram in his hand. Dead-head ambles up to the window. He is

"The mildest-mannered man
That ever scuttled ship or cut a throat."

or opened an oyster, or played the Napoleon of dead-heads unto the small Moscow of a telegraph office.

"Telegram, sir," handing the document to the clerk, with a countenance beaming with that self-consciousness which is the peculiar glory of a dead-head, and to which Wordsworth probably refers in the quatrain:

"Oh, joy that in our embers
Is something that doth live,
That Nature still remembers
What was so fugitive."

Receiving clerk glances at the beaming face, set about with a halo of self-consciousness which shines like one of Raphael's aureolas, and suddenly comprehends his man. Nothing but a dead-head had ever a fascination of manner and mien so absolutely *ravis*, and the clerk is sure, from his benignancy, that he is on his own peculiar business; in other words, that he (unfortunate clerk!) is the oyster about to be opened and swallowed.

Clerk wriggles—as conscious oysters sometimes will under the sword of a dead-head—and suddenly has an order from the rear, a "general" order at the moment presented. Is very sorry; can't stop to talk; must see his pass. Dead-head expostulates, looks the very sublimity of self-consciousness, and winks as if he would say: "I know what you mean; I've had people try to play this game before; you mean to get rid of sending the message." "Just a moment, only, I'll trouble you," says dead-head, with cooing accents of a dove; "I only wish to say a few words."

"Can't stop," murmurs the clerk blandly, somewhat as a cat purrs when her back is smoothed; "can't stop; haven't yet made my settlement for yesterday; come in to-morrow, when I am out."

"Oh, I'll only trouble you for an instant"—says dead-head, with a manner that insinuates, "You'll take the trouble for me; of course you will"—"Telegram is of the utmost importance."

Clerk No. 2 here sidles up and asks clerk No. 1 for the small loan of half a dollar; and clerk No. 1, glad of an opportunity to be engaged, holds a long confab with clerk No. 2, on the impropriety of borrowing without intention to pay, to which conversation, the remarks being meant for dead-head, dead-head listens with restless impatience.

Dead-head continues, feeling in a hurry: "My dear sir, I wish you'd attend to customers," and fumbles in his pocket for an imaginary pass—no pass therefrom eliciting. He then demands to see the manager, who is, of course, very conveniently engaged.

Now, here, at this point which the Greeks used to call the tug of war, the dead-head begins to manifest his full sublimity of impudence, and repeats his demand to see the manager with an air of a Roman who has saved his country, or of a major-general who has helped to save it—on a capital salary.

"I'm too well known to need a pass," breaks out the gentleman sublimely; "all the officers of this company are personal friends of mine. I'd like to speak to the manager."

It is enough. The credentials of this sublimity of impudence is sufficient to prove that the gentleman is authentically a dead-head. The manager is called, and dead-head accosts him familiarly with a

"My dear fellow, how are you? I came near having an altercation with your clerk" (here he casts a look of wilting scorn at the clerk); "you see he didn't know who I was, and unluckily I had forgotten my pass."

"Goodness," (a favorite expression of managers!) "you must remember"—for here the manager manifests some symptoms of incredulity.

"Why I've done business (dead-head) with this party these ten years."

Parties not being yet convinced, manager, clerk, and dead-head adjourn to a *gentleman's store* across the street, dead-head alleging that the proprietor can identify him; the business is stated, and the telegram is sent or not according to identification, dead-head departing with

a curse or a bow according to the success or non-success of his experiment.

Thus endeth the painting and first act of the drama of the dead-head.

C. H. H. PANNELL.

BROOKLYN, November, 1866.

Correspondence.

CHICAGO, Ill., Oct. 31st, 1866.

TO THE EDITOR OF THE TELEGRAPHER:

A GREAT deal has been said of late about the "New-England and New-York Champion Club." Now so long as they confined their championship to the section which the name of the club indicates, no one in the West was dissatisfied; but since they have agreed that New-England and New-York means the world, we of the West and South have some right to demand that, if they keep their name, they shall do something worthy of it, which, as yet, they have failed to do.

There are different kinds of sending: The squirty style, the single circuit and the long circuit writing. As repeaters are becoming so much used, the latter style is much the more useful. In fact it is becoming essential to the rapid transaction of business, and we out here think that to be champion of the world a man, in the first place, should be able to send so that it will pass through half a dozen repeaters, if necessary, or say from New-York to San Francisco, providing, of course, that the lines are working well all the way; that a man should be able to send rapidly as well as even and firmly; that he shall be able to receive as fast as he can send, and make a good legible copy; that in correctness he shall be equally a champion. To receive rapidly, correctly, and to write out plainly and fully are necessary qualities. Now the champion club have made sending the test of superiority, when in reality receiving is a much more proper test. Any plug can send; many paper operators are fine senders, and the champion should at least make paper operator time. Mr. Joseph Fisher, of Nashville, a paper operator (they were nearly all paper operators then), has sent at the rate of fifty-five words per minute. George Everett, of Nashville, has within the last summer sent fifty-eight words per minute. This can be vouched for by Messrs. Morris, of Louisville, Joyce and others, of Nashville, or Col. J. C. Van Duzer. The writer of this saw him send fifty-five words inside of one minute, and without putting on any extra strain. There are half a dozen operators in a Chicago office who will send by the hour at the fastest rate made by Mr. Burns, and who, without any trouble at all or any previous preparation, could send forty-five words per minute for ten minutes. There are plenty of operators in the United States who send two hundred and fifty words in five minutes.

Now, gentlemen of the Champion Club, if you wish to worthily bear the title you have assumed, send fifty-five or fifty-eight words per minute, or send a column of print at your present champion time, or perhaps two or three words more per minute, and we will give you our profound respect, and doff our hats to you as champions, provided, of course, we cannot beat your time.

I believe the club requires an initiation fee from its members. Take enough of the club fund to buy a local and a key, rent a retired room somewhere, *practice*, and then come forth when you are sufficiently expert, and conquer "New-England and New-York, which in effect means the world." Then turn your attention to and gobble up the few poor plugs at Buffalo, Chicago, Cincinnati, Louisville, Nashville, and the other small cities in the West and South.

BIRNEY.

WASHINGTON, D. C., Nov. 9, 1866.

TO THE EDITOR OF THE TELEGRAPHER:

Can you inform me through the columns of THE TELEGRAPHER how Mr. Burns can be termed, or claimed

to be, champion telegrapher of the United States, when no one south of New-York is allowed in the Association of the "Golden Key" arrangement? None but the New-England States are allowed to try their skill. There is one if not two operators in this office that could give good account of themselves if allowed to be heard. How is it no one south of New-York is allowed to challenge?

[We cannot give the desired information, as we have never considered either Mr. Kettels or Mr. Burns the champion of anything more than rapid "sending," and of this there seems a doubt, as may be seen by the foregoing letter.—ED.]

BOSTON, November 14, 1866.

TO THE EDITOR OF THE TELEGRAPHER:

EVER since the establishment of telegraphy as a means of communication in this country, ingenious telegraphers have devoted much time and labor in the improvement and invention of repeaters, batteries, apparatus of every description pertaining to the business, and especially INSULATION, while the important subject of WIRE as a conducting medium has been entirely overlooked until within a brief period. I observe with satisfaction that this great deficiency is in a fair way of being overcome by inventions of those talented and experienced electricians, Messrs. Moses G. Farmer and George F. Milliken, of this city, and for which patents have already been secured.

Believing, as I do, that the advent of an improvement of this nature will be hailed with delight by our professional friends throughout the country, I propose to give a few of its leading features.

The wire is made of copper with steel core, combining conductivity with strength, and the advantages to be gained by its use over that employed at the present time will readily be perceived.

The advantages to be derived from the employment of a copper conductor for telegraphic communication are so well known that an argument in its favor is entirely unnecessary. It has, however, insufficient strength to sustain itself, and for this reason iron was substituted in the early days of telegraphing. Through the invention of Messrs. Farmer and Milliken, the desideratum of ample strength and increased conductivity has been reached.

The steel core may be of any desirable thickness in order to obtain sufficient strength, without regard to the full size of the wire, on which the increased conductivity will depend, and while preserving ample strength and without increasing the diameter of the wire beyond that of the iron wire now commonly used, a degree of conductivity may be obtained equal to that of a very large iron wire or rod.

In a pecuniary view, comparisons are greatly in favor of this invention, and it will be readily seen that by largely increasing the conductivity, the indirect economy could hardly be overestimated.

In addition to the decrease of resistance and consequent reduction of battery necessary to work this wire, a still further reduction of both could be made through the practicability of substituting relay magnets wound with coarser wire than that used in our ordinary circuits.

Thus it will be seen escapes would be comparatively slight, and relay magnets less expensive. Another important feature relating to economy is the weight as compared with an iron wire of the same conductivity.

Especially is this the case when cost of transportation becomes of considerable consequence, and a saving of much more than the original cost of the wire may be easily conceived in transportation to great distances.

The smoothness being precisely like that of any copper wire in this respect, the facility with which it can be handled by constructors and repairers, and its durability, are also important features in connection with this wire, and it is to be hoped, for the advancement of telegraphing, that its many advantages will lead to its general adoption at no distant day.

T. A. D.

ERIE, Penn., Nov. 15th, 1866.

TO THE EDITOR OF THE TELEGRAPHER:

We have just finished a new line of telegraph on the Philadelphia and Erie Railroad to this point, nearly five hundred miles by the route the wire is extended, insulated with the Brooks Patent.

Although many of the poles are green and full of sap, the cross-arms made of timber taken from the river and placed upon the poles soaked full of water, and other circumstances unfavorable to the working of a new line, I can truly say I never saw a line work so well in clear weather as this does the entire distance in one circuit during the heaviest rains.

At times when it has fallen in such quantities as to carry away bridges, during the heaviest of it we get Philadelphia on the same adjustment and with the same ease as Corry, the first station. I have never seen any other kind of insulation that would work as well, even fifty miles, as does this line the entire distance.

There is another wire upon the same cross-arm divided into six circuits as follows: Philadelphia to Reading; Reading to Harrisburg; Harrisburg to Sunbury; Sunbury to Renova; Renova to Kane, and Kane to Erie. Now, with so many reversed batteries working a wire upon the same cross-arm, no more sympathy or cross-current is shown than if this wire was on another set of poles or a hundred miles distant.

Not one insulator has broken or had to be replaced from any cause whatever, to my knowledge.

H. A. CLUTE,

Superintendent Philadelphia and Erie Telegraph Line.

PHILADELPHIA, Nov. 22, 1866.

TO THE EDITOR OF THE TELEGRAPHER:

As most of the testimony in favor of the "Brooks" Insulator has been given to show its qualities as an insulator, I offer the following, which will give some of its merits as a substantial fastening for wires:

There is between this city and Pittsburg ten hundred and thirty-eight miles of wire insulated with the glass and bracket, and twenty-seven hundred and eighty-eight miles insulated with the "Brooks Patent Insulator."

A careful record of the casualties or interruptions upon each wire kept from August 1st to November 1st of the present year, including breaks, crosses, ground connections, show one hundred and twenty-six on the wires insulated with glass and bracket, and one hundred and forty-two on that insulated with the patent insulator.

Now, by making a calculation, and increasing the number of miles insulated with glass and bracket, so as to equal the number of miles insulated with the patent insulator, there would have occurred three hundred and thirty-eight interruptions in the three months, or nearly two and a half times the number occurring on the wires insulated with the patent insulator. Carrying out these calculations so as to include the interruptions for one year, on a hundred miles of wire insulated in each way, would give forty-eight interruptions on that insulated with the glass and bracket, and twenty on that insulated with the patent insulator. Suppose each of these interruptions to cost five dollars to repair, it would take two hundred and forty dollars per annum to pay this item on the one hundred miles of wire insulated with the glass and bracket, while that insulated with the patent insulator would cost but one hundred dollars.

Most of the wires insulated with the patent insulator run along the Pennsylvania and Reading Railroads, and many of the interruptions are due to causes incident to rail routes, such as the poles being broken by freight cars getting off the track, or by wood being piled about the poles and taking fire, and thus poles destroyed. These are interruptions not incident to the wires insulated with the glass and bracket, as they are entirely on the turnpikes, but parallel to those upon the railroads.

THE TELEGRAPHER.

There may be causes on the turnpikes to counterbalance these, but they do not occur to me at this time.

Let any one now make their own calculations, and see how long it would be before the original excess of cost of the "Brooks" Insulator would be absorbed in the increased expense of maintaining the other kind, not counting the loss of business by interruptions which is by far the greater item. Yours, JAMES PARTRICK.

MEADVILLE, Pa., Nov. 20, 1866.

TO THE EDITOR OF THE TELEGRAPHER:

It is my sad duty to inform you of the death of our late brother operator, E. D. Slate, who was killed at Boyd Farm, Pa., on Thursday night, November 15th. About half-past nine P. M., he closed his office, and was walking up the track to his boarding-house, when he saw an engine coming towards him, and stepped off that track on to another, and was knocked down and run over by the train which was running to station. They make a running switch there, and it is supposed that he was blinded by the head-light on the engine. He was conscious until his death at 12:45 A. M. Mr. D. H. Fitch, our Division Superintendent, went to Boyd Farm in the morning, and took charge of the remains in behalf of the Masonic fraternity, of which Brother Slate was a bright and shining light. We have a special meeting to-morrow night to adopt resolutions upon the death of our late brother, which will be forwarded immediately for publication.

A. S. HAWKINS, District Director.

HUMORS OF THE TELEGRAPH.

From W. B. Wilson's *History of the Organization of the Military Telegraph Corps of the Army of the Potowmac*.

U. S. M. T.

(CONCLUDED.)

The day our troops occupied Alexandria, Davie Strouse began extending the U. S. M. T. into the domains of the F. F. V's. Paul Connor, Charlie Noyes, and Dave Carnathan, or big Davie, as our old countryman Paddy Welsh was wont to call him, had charge of construction. Under such experienced builders as these the work went swiftly on. The first Government office in the Old Dominion was opened May 24th, 1861, in the celebrated Arlington House, where the venerable George Washington Parke Custis, the last of Washington's household, was wont to dispense his hospitalities to foreign and native travelers who, in search of the historic and picturesque, were ushered into his beautiful domain, and where, to the breaking out of the war, his son-in-law, Col. Lee, of the U. S. A., remained a brave and loyal soldier of the Republic, but who, in sorrow be it said, allowed himself to float down the boiling sea of treason—a traitor.

The next was opened in Alexandria on the same day. The furthest our lines at this time penetrated Virginia was to Falls Church, and no further extension of them was made until Gen. McDowell moved his army to attack the enemy and drive him from his stronghold; then the lines were run to Springfield, Fairfax Station, and Fairfax Court-House. The office at Springfield was opened on the 19th of July, and closed at 8 A. M., July 22d, 1861, after the last of our stragglers from the battle-field of Bull Run passed wearily wending their way Washington-wards. Offices were opened July 20, 1861, at Fairfax Station and Fairfax Court-House. The former was operated with great efficiency by Messrs. Hall and Rose during the action at Bull Run, and was closed by them at twenty minutes past one o'clock on the morning of July 22d, after which they fell in the rear of our retreating forces. These gentlemen were peremptorily ordered by the colonel commanding the post to close their office and lead in the retreat, but which they manfully refused to do, and held out in their determination until the last soldier had started in retreat. The office at Fairfax

Court-House performed wonders under the management of Messrs. H. W. Benton and M. V. B. Buell. During the battle a line of couriers was established to bring reports every fifteen minutes from the battle-field to this the nearest telegraphic point, and from thence to be sent to the War Department at Washington. The office was only abandoned after Gen. McDowell, in using almost superhuman exertions to stop the hurricane of a flying, panic-stricken army, was compelled to fall back upon the fortifications opposite Washington. Then the operators followed the general to Washington, where they arrived about eight o'clock A. M., July 22, foot-sore and weary.

In the telegraph office at the War Department, throughout Sunday, July 21, 1861, were congregated the President, most of his Cabinet, Gen. Scott's staff officers, Col. Thomas A. Scott, and other celebrities of the nation, with maps of the field before them, watching, as it were, the conflict of arms as it progressed. Hour after hour, as the couriers reported our gallant troops steadily forcing the enemy back, hopes beat high, expectation, satisfaction was discernible on every brow, and the cheers of our patriotic soldiery as they fought bravely were responded to in the hearts of all present. Suddenly, as the shades of evening were drawing on apace, a lull occurred. Firing could not be heard by the corps of observations. No couriers arrived at Halifax. What could be the matter? The most plausible reason advanced was, that our army, now victorious, were resting after the hard fighting of that hot summer day. Every few minutes Fairfax was signaled, but only to receive from the operator the stereotyped reply of "no news." An hour was expended, when, like the quick flash of lightning and the stunning crash of thunder, came those chilling words: "Our army is in full retreat." The signals now became more frequent, rapid, and excited. The retreat soon resolved itself into a perfect rout, and as the telegraph reported to those around it assembled the terrible scenes and heart-rending stories of suffering during that never-to-be-forgotten night, all seemed to feel that the hour of the nation's greatest peril had arrived, and clung instinctively around the cool, clear-visioned President, looking to him for succor. That he gave it is a well-known historic fact, and needs no repetition from me.

Shortly after the battle of Bull Run, Davie Strouse, Superintendent of Telegraph, prostrated with disease, went to his home on the blue Juniata, and Jas. R. Gilmore was appointed Superintendent during his absence. Poor Davie, his absence was decreed to be perpetual. Consumption, whose germ long before had been planted in his breast, rapidly did its work, and in November he was called away. Open-hearted, open-handed, he was generous to a fault. With a bright mind and sympathizing heart, his entrée into any society was the signal for the beginning of a pleasant entertainment. High minded, patriotic, when the rebellion broke out he left the peaceful fireside and offered his services to the Government. Night and day, rain or shine, he trudged through Virginia mud, building telegraph lines with a zeal worthy of all emulation, and heedless of health so long as his labors would benefit the Government he so devoutly loved. His life he sacrificed in his loyalty. Long will his death be mourned.

Late in June a line was required from Fortress Monroe to Newport News, and a party of operators were sent down to open and put one in operation. The chief of the party was a telegraphist with eight years' experience. Yet, in putting up the main and opening the office at Fortress Monroe, he ran both the air and ground wires into one post of the key, connected his relay to the main between the cups and the ground, and then swore the line was broken and would not work!!!!

Operators as a general thing are not very volatile, but when you come across one who is an exception to this rule, you may rest assured he is "gassy." Here is an illustration to the point. One evening La Mountain, the aeronaut, was preparing to make an ascension from the

Fairfax Seminary. One of our operators stationed there, seeing the preparations making, thought a voyage through the air would be beneficial, and accordingly went to Gen. Franklin to obtain his consent for a passage. The general, knowing the amount of "gab" possessed by the youth, consented, providing he would go inside, "for then," said the general, "the balloon will have sufficient inflating power to carry up three rebel camps." The youngster slooped.

We had one office on the lines which operators tried to keep aloof of. It was considered the fatal office, and was located in the depot of the B. & O. R. R. at Washington. In the space of three months three operators stationed there sought the hymenial altar. Those who were not so unfortunate as to be caught by the matrimonial noose were sure to be discharged for one cause or another shortly after their installation.

Two days after the battle of Ball's Bluff (October 21, 1861), wherein our troops were repulsed, and Col. E. D. Baker, the patriotic senator, was killed, our office was opened at Edward's Ferry, on the upper Potomac. Charlie Tinker, a distant relative to the celebrated Tom, and a white-haired youth named Burner, were sent to the office to "do" the telegraphic honors. The office was located in a hut, vacated but a short time prior to their arrival by a lame contraband. Two days only did the office remain at the Ferry, for no sooner did Gen. Banks with his column leave there and return to his former headquarters near Darnestown, Md., than the visions of the boys becoming more acute, they, like the prophets of old, thought that "discretion was the better part of valor," and turning their backs to the glistening bayonets of the enemy, pulled up traps and made the best time on record in rejoining Gen. Banks.

Burner, the above-mentioned white-haired youth, when preparing to leave home to join the "*le corps de telegraphique*," was forcibly struck with the happy thought "that he who carries provender with him need never starve." Arguing that circumstances might occasion his being sent to some distant camp where forage for telegraphers would not be supplied by the quartermasters, 'twere best he should carry a stock of provisions with him—"Well thought," said he, and immediately began to fill a second trunk with eatables. Arriving in Washington, he found it necessary to make his way to Edward's Ferry, and having no means for their transport, to leave his commissary stores behind him. Being absent ten days, and no prospect of being able to have his plunder sent him, he requested one of the operators in Washington to open the trunk and take care of the contents. Trunk opened, disclosed to the gaze of the hungry opener seven pounds of pound-cake, six pounds of fruit-cake, one peck of apples, half a bushel of chestnuts, a bologna sausage, a head of cabbage, and six turnips. On the fact becoming known that he was such an elegant provider, the position of quartermaster and commissary of the corps was tendered him; but possessing the modesty for which all telegraphers are proverbial, he respectfully declined the position.

One more anecdote, and my work in that line is completed as far as operators are concerned. This one will show what kind of accommodations army telegraphers had to put up with at times. When Lathrop (he of Ohio) and Maize went to open the office at Langley's, Va., for the use of Gen. Smith's division, they found that no provision had been made for them, and accordingly went to Gen. Smith to have him point out their location. The General eyed them for a few minutes with a scrutiny worthy of a Bow street detective, and then made a reconnaissance for a proper location. After a faithful survey of half an hour, he espied an old shed, raised some feet from the ground, in the basement of which were some horses, cows, and pigs, and above these a room in which the cook kept his poultry. This latter apartment he ordered to be divided by a partition, one side to be occupied by the operators, the other for poultry. Oh! what a medley!

Chickens, geese, Guinea-fowls, ducks, horses, cows, pigs, telegraph operators, and rats, all in a building which was hardly large enough to insure sleeping surface for ten men.

In September, 1861, Mr. R. F. Morley, Superintendent of the Alleghany Valley Railroad, was appointed captain in the 17th regiment of infantry, U. S. A., and detailed specially as General Manager of Government Railways and Telegraphs. He was a young man who brought into his position more than ordinary zeal, ability, and energy, and whose whole soul appeared wrapt up in the service in which he was engaged. The telegraphic department had new vigor instilled into it, and began to assume a systematic shape under his management. He organized a regular construction party, fully equipped, always in readiness to begin work at any moment at any point desired, and placed it under the lead of that experienced telegraphist, Mr. Parker Spring. This was a marked improvement on the plan he found in operation, that of hunting for men when required who, when found, were so inexperienced that a dozen of them were not worth more than one well-drilled builder. Capt. Morley was constantly in the saddle, day and night, now along the railroads, then among the telegraphs, pushing work through at lightning speed. The business of the railway department increasing and demanding more of his attention, and a serious illness, brought on by exposure whilst putting up wires, compelled him to relinquish the management of the telegraphs. Upon his withdrawal, the well-known telegraphist, Capt. Anson Stager, General Superintendent of the Western Union Telegraph Company, was appointed General Manager of all military telegraphs in the United States, with power to appoint assistants in each military department. Mr. T. T. Eckert, also an old and well-known telegraphist, was appointed Assistant Manager, and placed in charge of the lines connected with the army of the Potomac. Under these two experienced gentlemen the fine system of army telegraphing, which challenges the world to produce its equal in the rapidity, promptness, and correctness of doing work, was perfected.

I cannot conclude these hastily-written pages without mentioning the first organized party of constructionists. It was composed of twenty-two men, under the supervision of Mr. Parker Spring, an experienced telegrapher and accomplished gentleman. He picked his men for being reliable, steadfast hard-workers, and divided them into gangs of climbers, pole-cutters, diggers and laborers. Over each gang he placed intelligent foremen, of whom Mr. Isaac H. Wood, a respected resident of Poughkeepsie, N. Y., and Mr. Paul D. Connor, of Maryland, were chief. The party was provided with tents, horses, wagons, and full complement of telegraphic implements. Whilst in camp they led a happy life, the fruits of honest labor. Their work was laborious. At all hours of the day or night they were liable to be called upon to meet some exigency of the service. But no matter if they were called from sleep when the mantle of midnight had thrown its dark shroud around all earthly scenes, or in the early dawn of morning, their answer to the summons was invariably made with cheerfulness and alacrity. In their work of constructing new, tearing down and rebuilding old lines, they were called upon to plod through snow, rain, and mud, over hills, through dales, across rivers, in forests and swamps. At times to travel for days through tracts of country from whence civilization appeared to have departed, and where not a sound was heard, excepting the notes of their own industry or the cawing of crows. Again their work would carry them so close to the enemy that, with but a rivulet between, they could hold converse with the rebel pickets. Their life was one of excitement and danger as it was varied and picturesque, and had they kept notes of travel they could have furnished an able pen with material for thrilling stories of history and romance. Much credit is due these men for their fidelity in the rapid extension of telegraphs to meet the wants of the Government. Other parties have since

been organized, dividing the labors and proving the wisdom of their formation.

And now, having unraveled all my notes, and performed as well as I knew how the task I laid upon myself, I beg the pardon of those whom I may have unintentionally caused a moment's pain, thanking those who have kindly overlooked errors, and take leave of my subject.

From the "Long Room" we cull this "waste paper":

"A pretty good story is told of Dick S—v—s, whose sporting character won for him so many warm friends, while he was here in New-York. On the walls of the "Buffalo room," in old 21 Wall street, a clerk had written some familiar quotations and appended the author's name; among them were:

"To be or not to be," etc.—*Shakespeare.*

"He who steals my purse," etc.—*Ibid.*

which Dick one day read and pondered. At last he said, "Why, I always thought Shakspeare wrote both of those." It was some time after that Dick heard the last of that "goak" on him."

THE Board of Brokers send us this one:

"On the Vermont and Boston line, in 185—, one of the operators was a gentleman well advanced in years, who by accident had lost an eye, and had one of glass substituted. When answering calls 'I, I,' and signing, he was frequently interrupted by some unknown 'brass pounder' repeating his answer thus: 'I, I, two eyes, one eye and a glass eye.'"

A "COSMOPOLITAN" writes from the "caravansary" as follows:

"The 'owls' in the New-York office enjoyed a hearty laugh one evening last week at the expense of good-natured P—k—s, who, having received a 'D. H.', improved the occasion by going round inquiring 'who that "Frank" was who sent so many free messages? He saw them every day, and thought he must be some operator.' Can any one enlighten him?"

A FRIEND in Chicago sends us a few BULLS TELEGRAPHIC:

"A message received at Chicago for the Peshtigo Lumber Agents was received P. & H. Tigo.

"Another from the interior of the Sucker State, for the Real Estate Advertising Agency, caused a messenger much useless hunting for Real & Tate.

"Another for Miles J. O'Reilly was received Miles Korrilly.

"Another signed W. T. Claypool, 9 | 81 paid, was received W. T. Clay, 6 col., 981 paid.

"In the Associated Press dispatches, speaking of the conduct of the passengers on board the ill-fated Evening Star, it read: 'They obeyed all orders firmly and coolly,' and was received: 'They obeyed all orders from Ely & Cooley.'

"An office message to Apulia, (New-York) office, went to A. Pulia, New-York."

"SPEAKING of bulls," says a Maine correspondent, "a quite prominent operator one day copied a message to a person as going to Cua City, Cua, and was much chagrined to find it should be, Iowa City, Iowa. Another, in copying a message addressed to Sir E. Head, Gov.-Gen. of Canada, Halifax, N. S., got it, Sore Head, Gov., etc. I'll vouch for the latter. Another operator while taking reports received a word as Capa City, and not understanding it got it repeated with the same result, and turning to another asked what Capa City meant; the laugh came in when it was suggested that capacity would hit his case. This arose partly from the irregular style of manipulation."

"You can publish the following if you choose," writes a Chicago friend of THE TELEGRAPHER. "The following message passed from a wife to her husband:

"Heard you were married; if that is so you have

broken my heart." It is needless to say that the answer was such that it is believed her heart is not broken. He expressed more love than the husband of a lady who recently ran away with another fellow, and telegraphed to see if her true and lawful husband was after her. She got the following:

"Am at home—going to stay there. You can go to hell."

"The gentleman who sent the following message to a miss, a short time since, has gone into the refinery business:

"Lonely and sad I am waiting for thee."

A CORRESPONDENT at Honesdale, Pa., writes as follows:

"Having read with much amusement the bulls lately published in THE TELEGRAPHER, I will contribute my mite by sending the following copy of a message lately repeated at this office:

"Fr—, to — :

"Let friends on both sides know my wife not expected to live. Come immediately. She will be buried Monday.

"19 | 62 & 62 pd.

Sig."

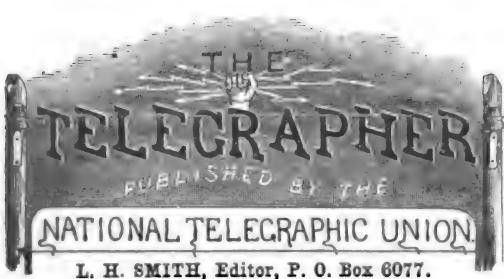
"That's what I call rather rough. Not even giving the poor woman a chance to live, whether she wants to or not."

How the Revenue is Apportioned.

THE Investors' Guardian, an English journal, thus explains how the revenue derived from the Atlantic Telegraph is at present apportioned: "A through message from London to America of 20 words is charged £20; The British line to Valentia gets 6s.; the American lines Port Hood to New-York, 10s. This leaves for two companies £19 4s. The Newfoundland Telegraph Company takes one-third of the gross receipts of the two cables, £6 8s.; the Atlantic Telegraph Company receives only £12 16s. This amount of £12 16s. per message has to meet the following claims: Working expenses and maintenance of the cables, with a staff at London and Valentia; debenture holders, per annum, £5000; the Anglo-American Company—20 percent per annum on £600,000, £120,000. This can be paid off at three months' notice by funding £1,200,000. One year's interest is nearly due now. Then follows the Atlantic Telegraph 8 per cent preference stock of £600,000, £40,000; and the original 4 per cent stock of £600,000, £24,000. Should any balance remain after the £12 16s. per message of twenty words has supported the above charges, the Anglo-American Company can claim one-half; and the remaining half is equally divided between the 8 per cent preference stock and the 4 per cent original stockholders of the Atlantic Telegraph Company."

At a meeting of the "Universal Private Telegraph Company," of London, the chairman announced that the company had been doing business at a loss during the past half year. The concern had been grossly mismanaged, and great reforms were necessary. The revenue of the company is, however, steadily increasing, having amounted to nearly £7800 in the half year. The plan of this enterprise embraces a system of house-top cables forming a network over the whole city, each cable consisting of a large number of small conductors. From these circuits are made up as required, and leased to private individuals or firms at a fixed annual rental, thus enabling them to have telegraphic communication between different points as required without building special lines for the purpose.

In the evidence given before a committee of investigation on the Indo-European Telegraph, it was stated among other things that a message was sent to India to purchase 1000 bales cotton, and was received "21,000 bales." Another message to a gentleman in India stated that "his lady had presented him with a fine daughter," and the message was received, presented him with five daughters. Pleasant intelligence for these hard times.



SATURDAY, DEC. 1, 1866.

A TELEGRAPHIC MONOPOLY AND ITS POLICY.

We make the following extract from a very interesting article in *The London Engineer*, entitled "The Rise and Progress of Telegraphy." It will be seen that many of the remarks therein have a bearing and an application not altogether confined to our friends on the other side of the Atlantic:

"It is now twenty years since the Electric Telegraph Company obtained its act of incorporation, and began to extend its wires outside the kingdom—a few days ago only it declared a dividend of ten per cent, the highest permitted by law. This company was the first in the field, and the policy of the Directors, from the first election of the first board, has been to purchase every patent right of the slightest value, and to keep it entirely in their own hands. Thus the patents of Cooke and Wheatstone were bought in 1846, and between that date and 1852 the company spent no less than £168,000 (over \$800,000) for its patents. This line of policy helped to keep competitors out of the field, as well as the fact that the most eligible routes on the railways were entirely in the hands of the company by special agreements. Again, as the corporation rose in wealth and influence it was in a position to strenuously oppose in Parliament and elsewhere all intending rivals, who were subjected to heavy expenses in facing all these difficulties. Thus from the first the Electric and International Company obtained the lead and kept it, while its rivals had lower and fluctuating, though in some cases very good, dividends.

"The charges for messages were, when the company was first formed, fixed at the rate of a penny per mile for twenty words for the first fifty miles, one half-penny for the next fifty, and one farthing per mile for all distances beyond. These rates were from time to time reduced, principally owing to the competition of rival companies, until a few years ago, when the United Kingdom Telegraph Company obtained its act, and gave a fair trial to the universal shilling rate for all distances. This rate which might perhaps pay well at once, and certainly would do so in the future, were all the wires in England in the hands of one company, did not do so when divided between three—the Electric and International, the British and Magnetic, and the United Kingdom Telegraph Companies. The latter, which conferred the benefit on the public, was perhaps the greatest loser by the rate, as its wires are less extended through the country than those of the older company. At last a compromise has been made, and messages are now sent throughout the country at the average rate of about one shilling and six pence (£33 cents) each.

"Four years ago a large proportion of these messages were transmitted at the rate of three or four shillings apiece; yet the great gain to the public in the present reduced rates, instead of resulting in loss to the telegraph company, has enabled a ten per cent dividend to be declared. The balance-sheet for the last half year exhibits a profit of £72,380 against £54,076 for the corresponding six months of 1864, and enabled £10,824 to be carried to the reserved fund, after payment of the

dividend. These facts prove that the Directors have done their duty to themselves and their shareholders well.

"But a portion of these large profits are derived from a neglect of duty to the shareholders and the working staff. The International Company having offices in nearly every town and village in Great Britain, has thousands of hands in its employ, and these so badly paid, even in comparison with railway clerks, that public messages are mostly transmitted by boys, who alone, as a rule, will accept the occupation. By virtue of agreement with the railway companies, it is frequently the case that these lads are employed in signaling trains, as well as in telegraphing, the two companies paying the salaries between them. The salaries these respectable bodies unite and pay to the youths engaged for twelve hours a day in the responsible duties, actually amount sometimes to as much as ten, twelve, or fourteen shillings a week—the latter two stipends being very common! Errors in messages, occasional railway collisions, and departures from the line of rectitude by these unfortunate officials are no more than might reasonably be expected under the circumstances. But the evil has not ended where it began—with the Electric Telegraph Company. Other companies arising in the face of severe opposition, were unable to raise their working expenses above those of other companies without inviting censure from the shareholders, and were compelled to propagate the infliction. The London District Telegraph Company caught the infection, and once in case of a defalcation on the part of an employé, Mr. Curtoys, the Secretary of the company, was actually *ashamed to prosecute*, as the Lord Mayor said he was to convict, such was the miserable life and pay of the delinquent as proved in the evidence. From England again the evil necessarily extended its roots, and we have seen how twenty-five per cent of the Indian Telegraph officials resigned and nobody would fill the vacancies, adding another item to the already discreditable annals of Indian telegraphy. These facts show at what a cost to the nation as well as to individuals the shareholders of the Electric Telegraph Company received the highest dividend permitted by law.

"The Hon. Robert Grinston, Chairman of the company, said at the recent meeting that much of this success was owing to the zeal and energy of the staff, from the lowest to the highest. He spoke more especially to those men who had to be on the lines at all seasons, and in all weathers, keeping them in order; so the directors, thinking it sound policy to make the staff participate in the profits of the company, had given the whole of them bonuses amounting in the aggregate to £4394. The munificence of this gift in each individual case will be understood when it is considered that it has to be divided between several thousand recipients. After paying this and all the dividend, there remained over and above a surplus of £22,791.

"Competing companies, having fought for every step of their ground, in every possible law court—from Parliament downwards—were further crippled by having to combat before the local authorities all over the kingdom for permission to run their wires along the neighboring roads, and some country municipalities were so foolish, in rare instances, as to refuse the competing company permission to enter their district. They cannot, as a rule, take the railways as most of the leading railway companies have not only paid for the erection and maintenance of their own telegraphs, but have sacrificed their own rights in many cases, and granted to one or the other of these companies privileges which seem almost incredible. It is said that the Edinburg, Perth and Dundee Railroad Company are absolutely precluded, by agreement signed and sealed, and valid until the year 1894, from erecting a single mile of electric wire on their own supporting poles or fixing a single insulator on an inch of their own ground, or erecting a pole, or permitting any one else to do any of these things except the telegraph company. Such one-sided agreements as these are common.

"Thus the leading policy of our leading telegraph company has been in every possible way to squeeze the highest possible dividend for the shareholders, at the sacrifice of all other principles whatsoever. As, however, the Government has very wisely limited the amount of profits there is hope for the future that the public will be better served, the staff improved in standing and efficiency, and lines erected capable of withstanding a heavy snow-storm without coming to the ground, and interfering for a month with the routine business of a whole country."

TELEGRAPHIC MISCELLANEA.

H. N. S., ELYRIA, OHIO.—We are now publishing Wilson's History of the U. S. M. T. It commenced in our last issue and is concluded in this.

We shall soon publish diagrams of the now celebrated Brooks Insulator. It is composed of an iron case, with a glass inside, and an iron hook, all of which are cemented together with paraffine and sulphur, which are coated where exposed to the weather by a mixture of rosin, beeswax, and tallow.

Messrs. L. G. Tillotson & Co. (see advertisement elsewhere), 26 Dey street, this city, are sole agents.

THE MERCHANTS' NATIONAL TELEGRAPH is the name of a two-wire line just completed from Pittsburg to Oil City. Mr. D. M. Edgerton, an oil merchant of Pittsburg, is President, and Mr. J. H. Miller, late of the W. U. Company's Pittsburg Office, is Superintendent and Secretary. This line connects at Pittsburg with the Pacific and Atlantic line, which is being built from Pittsburg to Cincinnati, and Baltimore and Philadelphia.

The first above-mentioned line will be extended considerably, the extent of which is not yet made public.

It has been suggested by a member of the Committee on the Constitution and By-laws of the late Convention that members of the Union compare the last edition of the Constitution and By-laws with the former editions, clause by clause, section by section, and article by article, and criticise either or both through these columns.

In this issue we publish a letter giving the particulars of a new conducting wire. A specimen of this wire has been sent us, and we shall be happy to exhibit it to any one who may desire to see it.

The following is a description of it:

Full size, No. 10; size of steel core, No. 12 gauge. Estimated to be equal in conductivity to No. 5 iron wire, weighing 676 lbs. to the mile, while this weighs but 262. Relative strength of this wire slightly inferior to iron, the relative being 4.64 to 5.62.

We acknowledge the receipt of four specimens of the Brooks Patent Insulator inserted in cross arms and brackets ready to attach to the pole.

Specimen No. 2 is a plug bracket, ten thousand of which are now being used by the N. Y. N. F. & L. Telegraph Co. No. 1 is also a bracket, to be fastened by two six-inch galvanized spikes, and to be used by the same company upon their new lines. A letter from Mr. Supt. Mackay says he is much pleased with the working of the Cape Breton line, which has been reinsulated with this insulator.

Specimen No. 3 is a four-foot cross-arm, with one insulator at each end, and No. 4 is a six-foot cross-arm with two insulators at each end. The blocks and arms are of white pine, to be fastened with galvanized bolts and spike. They are as neat a fixture as we have seen since our advent into the business.

COL. J. W. ROBINSON, of Concord, has resigned the position of Superintendent of the White Mountain Division of the Western Union Telegraph Company, and accepted the position of General Agent of the Home Life Insurance Company, of Brooklyn, N. Y., for the States of New-Hampshire and Vermont.

OUR Panama correspondent is informed that we must respectfully decline publishing his last letter. It is a little too personal, and will only elicit a rejoinder more so. He and his opponent have both had their say, and there the interest to our readers ends. We will add that he writes that "no chance exists for operators in South America, especially in countries bordering on the Pacific. I have been instrumental in getting two out of the country within a year, who did not have a clean shirt to their backs nor money enough to buy a loaf of bread. They had come from the South, whither they had been led to go by the highly-colored accounts that had reached their ears."

We wish to inquire, knowing the habits of too many of our profession, if this destitution was brought upon these two by the poor pay or their own improvidence? We opine the latter.

Not long since we published a letter from a correspondent in Pittsburg showing up one W. A. Bancroft, a telegraphic swindler and sharper, also publishing a letter from E. D. Troost, who had been "done" by Bancroft.

In September last we received, from Mr. A. G. Davis, Superintendent of the B. & O. R. R. Telegraph, a letter inquiring for the name of our Pittsburg correspondent, saying Bancroft was in his (Davis') employ, and denied the charges, and gave a satisfactory explanation, and expressed surprise to know who in Pittsburg was acquainted with him. In our reply to Mr. Davis we stated that the name of our Pittsburg correspondent could not be given without his consent, and that we had had in our possession the letter of Mr. Troost.

We received, too late for our last issue, the following letter, which explains itself, and to which we call the attention of our readers, who will, we hope, aid in detecting this precious scoundrel:

"BALTIMORE, 8th November, 1866.

"L. H. SMITH, Esq., Editor TELEGRAPHER:—Dear Sir:—Between the penning of my note to you and the receipt of yours of October 2d, Bancroft, the man referred to, has tricked me; and shamefully. He left the office where he had been engaged for several months, on a short leave, since which he has not been heard from. He appropriated the company's funds to himself, and I am anxious to bring the fellow to justice. I intend to leave no stone unturned to effect my object, and I beg you to call upon the fraternity to assist in tracing him. He left here going South; wrote to a friend here that he had a situation on Virginia Central Railroad at Richmond. I have telegraphed there; but no such man. He is a good operator, and a man no one would suspect. Send bill to me for your trouble.

"Yours very truly, A. G. DAVIS, Supt."

In the play of the LONG STRIKE, now being performed at the Olympic Theater, this city, is "The Telegraph Scene, complete with all the proper telegraph apparatus, furnished by the Western Union Telegraph Company." So says the programme. In the cast we find Slack, a telegraph operator, Mr. Leigh. On the fourth page of the programme is a wood-cut of a queer looking telegraph office, in which we recognize but one familiar object, the paper-reel. The instrument seems an impossible or an exceedingly primitive one; the operator or clerk is a remarkable specimen of our craft, and the old gent before the counter looks as if intoxicated, and the sorrow-stricken woman in the foreground reminds us of some of the scenes we have witnessed at the caravansary, when an immigrant comes in search of a lost friend, when she regrets the day she left the old country, and leaves her address "Castile Gaerdin"! Over the picture this passage occurs:

"The famous telegraph scene, with its rattling machines, bustling operators, and busy look of every-day life, seems a difficult thing to attach to any gleam of romance. Yet the audience hangs as breathlessly over the noise of the machine, as the wires bring from far

away the news that the critical witness is obtained and his presence likely to be secured, with as much interest as though each individual was personally anxious for the wrongfully accused."

THE Century Club of this city gave a reception to Cyrus W. Field on the 17th November. The Assembly Room contained its usual ornaments of paintings and statuary from the hands of eminent American artists, with the addition of a telegraph, which had been appropriately improvised for the occasion, leading to the Art Gallery below, so as to facilitate an interchange of sentiment from one hall to the other. The banquet-room was encircled by a profuse festooning of tri-colored bunting, which also draped and folded over the balustrades in the vestibules and along the various aisles and side-rooms. It contained also many new paintings by French and American artists. A single table was set in this hall, with a number of fancy and appropriate embellishments, at which the collation was partaken. The art gallery on the lower floor possessed special and remarkable interest, inasmuch as it contained a large number of landscape and other paintings, embodying conceptions of the finest native and foreign genius. Among these were some of the happiest efforts of McEntee, Cropsey, Whittredge, Peal, Kensett, Gifford, Lang, Huntington, Bierstadt, Boughton, Durand, Grey, and others. A fine band of music, under the direction of Mr. Doddworth, was in attendance, and admirably performed many choice operatic selections during the evening.

CHANGES, ETC.—J. A. Kerney, late of the Elizabeth, Pa., Office, now has charge of the Merchants' National Company's Oil City Office.

John B. Stewart, late of the W. U. Company's Pittsburg Office, is now Manager of the Merchants' National Company's Office, same city.

Mr. Samuel B. Moore, who has been employed in the Western Union Office in Troy for nearly ten years, as book-keeper and cashier, has resigned that position, and has accepted the position of cashier in the Albany Office of the same company.

Eugene Cadmus and George Lance, formerly of the Troy Office, have both been transferred to Albany.

ON Saturday, Nov. 17th, the stock of the W. U. Company declined under rumors that a dividend had been passed from 50 $\frac{1}{2}$ to 45 $\frac{1}{2}$, but rallied on the street during the afternoon to 48, upon a report being circulated that a dividend of 2 per cent had been declared. At this writing the stock is selling at 44.

THE Chicago and Northwestern Railroad are building a two-wire line between Chicago and Milwaukee; one insulated with the Brooks Patent, the other with the glass insulator. They have also extended their line west from Boone to Des Moines, Iowa. They have also put up their wire as far West as Des Moines, and will have it completed to Omaha by 1st of January.

ALBANY, Nov., 1866.

To DISTRICT DIRECTORS:—The charges preferred against C. Benton and Thomas Steward, Jr., members of the Albany District, have been satisfactorily answered, Mr. Benton being granted an honorable withdrawal, and Mr. Steward reinstated.

S. C. RICE, District Director.

DETROIT, Nov. 16th, 1866.

To DISTRICT DIRECTORS N. T. U.:—You are hereby notified that Mr. O. H. Lincoln has been expelled from membership N. T. U., for non-payment of dues, and James Bay and J. H. Peterson suspended for the same reason.

T. W. PRIEST, District Director.

A CORRESPONDENT writes as follows: "A recent report from the Postmaster-General's department, shows that the money-order system is growing in popular favor. The revenue from this source for the second year doubled that of the first. I look forward to a time when a system, similar to this in many respects, will be established

by the several telegraph companies. Besides producing a handsome revenue, it would be of inestimable value to the public at large.

"It is true that since the discovery of the magnetic telegraph science and skill have combined in producing some wonderful results, but its sphere of usefulness is still too much contracted. The Western Union Company, with its immense capital, possesses the ability to take the lead in this matter."

A COMMERCIAL COLLEGE in Philadelphia has given Park Spring the contract for a single wire line between that city and New-York for the use of their students. Whether this idea is to be extended or not we cannot say, and are still unable to learn the name of the college. Operations will commence at once.

PHILADELPHIA, Nov. 16, 1866.

NOTICE.—Charges are pending in this District against H. A. Woods and Reese Welsh.

C. CLAY YEAKLE, District Secretary.

I WOULD like the address of J. A. Munson—last I heard of him he was at East Liberty, Alleghany county, Pa. Want to get some of his back dues, and as he has not answered my letter sent to East Liberty some time ago, presume he has left there.

C. H. SAWYER, Director of the Maine District.

CORRY, PA., Nov. 9, 1866.

WILL some one please give me the address and whereabouts of T. I. Logan, a member of this District?

W. C. LONG, District Treasurer.

A TALK ACROSS THE CONTINENT.—The wires of the Western Union Telegraph Company were on Monday evening, Nov. 5th, put in direct communication between Port Hood, Cape Breton, and New-Orleans, Louisiana. Port Hood reported a heavy snow-storm, while New-Orleans reported the weather sultry. The wires were never known to have worked better such a distance.

THE NEW-ENGLAND CHAMPION TELEGRAPH CLUB.—The election of officers for this association for the ensuing year took place on Wednesday, November 7th.

THE report of the Directors of the Electric and International Telegraph Company, of England, states that the storm of January 11th, 1866, broke down and interrupted 450 miles of line, which was not completely restored till February 19th. The cost of restoration was £60,000. The income of the lines for the half year ending with June, was £163,748, against £145,736 for the corresponding period of 1865. Messages to and from India had entirely ceased, owing to the mistakes and delays which took place in the transmission.

PATENT CLAIMS.—59,818.—TELEGRAPH CABLE.—James M. Phelps, assignor to himself and Joseph Bailey, Brooklyn, N. Y. Ante-dated October 16, 1866:

I claim the employment in a cable of one or more spiral metallic conductors, C, wound around a core of india-rubber or elastic insulating material, B, which constitutes a loose insulating covering to a central conductor, A, substantially as herein described.

59,738.—MAGNETO-ELECTRIC MACHINE.—Henry Wilde, Manchester, England:

I claim, 1st, the method of constructing magnet cylinders for magneto-electric and electro-magnetic machines by making them of segmental iron concaves with intervening strips of wood, brass, or other non-electric material, substantially as set forth.

2d, The combination of a magneto-electric and electro-magnetic machine, constructed and operating substantially as and for the purpose set forth.

STOCK SALES, Nov. 23.—W. U., 47 $\frac{1}{2}$; Insulated, 18 ; Bankers' and Brokers', 9; Russian Extension, 97.

Obituary.

We have to announce with sorrow the death of Mrs. J. C. Hinchman, wife of the Metropolitan Superintendent of the Western Union Telegraph Company. Mrs. Hinchman was beloved and respected in society, and leaves a large circle of friends to mourn her loss. Her remains were committed to the tomb at Greenwood Cemetery on Saturday, November 17th, with impressive ritual. Mrs. Hinchman leaves two little children motherless. We tender our sympathy and condolence to Mr. Hinchman at this hour of his trial. X. X. X. X.

THE TELEGRAPHER.

THE TELEGRAPH.

BY WM. C. RICHARDS.

MARK ye those graceful curves that seem
Like lines of beauty on the sky?
Upon that mystic path canst deem
That busy thoughts each moment fly?
'Tis even so: for man doth tame
The forked lightnings by his skill,
And proudly bids their tongues of flame
Be vocal with his thoughts at will.

A thousand miles that line may reach,
Yet Thought, in scarce a moment's space,
Mocking the tardiness of speech,
Has run the far, mysterious race
And deeds to distant lands are told,
Ere yet the echo of their fame
Athwart their place of birth has rolled,
Or they have e'en received a name!

Behold, upon that rushing train,
A murderer flies the place of guilt,
And vainly tries to hide the stain
Of human blood his hands have spilt;
For through the air the tidings speed,
And Justice, warned, as if by God,
Stands ready to avenge the deed,
And smites her victim with her rod.

From the cold regions of the North,
To lands that smile 'neath Southern skies,
The winged messengers go forth;
And men behold with deep surprise!
The swift pulsations of the wires,
That to the tortured vision show—
As moved by the electric fires—
Tidings, perchance, of weal or woe.

O wondrous age! when man may greet
His brother, whom he cannot see,
And distant lands together meet,
In converse unrestrained and free;
When crime can find no refuge-spot,
Where its dark tale hath not been told;
When time and space are both forgot,
Or numbered with the things of old!

And e'er a century shall roll
Its burden on the mighty past,
Around the globe, from pole to pole,
Science her magic chains shall cast.
Then "Thought's highway," from sea to sea
And o'er their trackless wastes shall reach,
Till all the human race shall be
One in a universal speech!

BANQUET TO CYRUS W. FIELD.

OVATION BY THE NEW-YORK CHAMBER OF COMMERCE, NOV. 15TH.

REMARKS OF MR. FIELD.

MR. PRESIDENT:—I thank you for the kind words which you have spoken; and you, gentlemen, for the manner in which you have responded to them. It is pleasant to come home after a long absence, and especially when a warm welcome meets us at the door. It is pleasant to see familiar faces and hear familiar voices; to be among old neighbors and friends, and to be assured of their regard and approbation. And now to receive such a tribute as this from the Chamber of Commerce of New-York, and from this large array of merchants, and bankers, and eminent citizens, is very grateful to my heart.

The scene before me awakens mingled recollections. Eight years ago the Atlantic Telegraph had won a brief success; and in this very hall we met to celebrate our victory. Alas for our hopes! How soon was our joy turned into mourning. That very day the cable departed this life. It went out like a spark in the mighty waters. So suddenly it died that many could not believe that it ever lived. To-night we meet to rejoice in a success which I believe will be permanent. But many who were with us then are not here. Capt. Hudson has gone to his grave. Woodhouse, the English engineer, who was with our own Everett in the Niagara, sleeps in his native island. Others who took an early part in the work are no more among the living.

Lieut. Berryman, who made the first sounding across the Atlantic, died for his country in the late war, on board his ship off Pensacola. His companions, Lieut. Strain,

the hero of the ill-fated Darien expedition, and Lieut. Thomas, both are gone. So are John W. Brett, my first associate in England, Samuel Statham, Sir William Brown, the first chairman of the Atlantic Telegraph Company, and many, many others. My first thought to-night is of the dead; and my only sorrow, that those who labored so faithfully with us are not here now to share our triumph.

In the letter inviting me to accept of this banquet, you expressed a wish to "hear from my lips the story of this great undertaking." That, sir, would be a very long story, much beyond your patience and my strength. I should have to take you forty times across the Atlantic, and half as many to Newfoundland. Still I will endeavor, in a brief way, to give you some faint outline of the fortunes of this enterprise.

It is nearly thirteen years since half-a-dozen gentlemen of this city met at my house for four successive evenings, and around a table covered with maps, and charts, and plans, and estimates, considered a project to extend a line of telegraph from Nova Scotia to St. John's in Newfoundland, thence to be carried across the ocean. It was a very pretty plan on paper. There was New-York, and there was St. John's, only about twelve hundred miles apart. It was easy to draw a line from one point to the other—making no account of the forests, and mountains, and swamps, and rivers, and gulfs, that lay in our way. Not one of us had ever seen the country, or had any idea of the obstacles to be overcome. We thought we could build the line in a few months. It took two years and a half. Yet we never asked for help outside our own little circle. Indeed, I fear we should not have got it if we had, for few had any faith in our scheme. Every dollar came out of our own pockets. Yet, I am proud to say, no man drew back. No man proved a deserter; those who came first into the work stood by it to the end. Of those six men four are here to-night—Mr. Peter Cooper, Moses Taylor, Marshall O. Roberts, and myself. My brother, Dudley, is in Europe, and Mr. Chandler White died in 1856, and his place was supplied by Mr. Wilson G. Hunt, who is also here. Mr. Robert W. Lowber was our secretary. To these gentlemen, as my first associates, it is but just that I should pay my first acknowledgments.

From this statement you perceive that in the beginning this was wholly an American enterprise. It was begun, and for two years and a half was carried on, solely by American capital. Our brethren across the sea did not even know what we were doing away in the forests of Newfoundland. Our little company raised and expended over a million and a quarter of dollars before an Englishman paid a pound sterling. Our only support outside was in the liberal charter and steady friendship of the Government of Newfoundland, for which we were greatly indebted to Mr. E. M. Archibald, then Attorney-General of that colony, and now British Consul in New-York. And in preparing for an ocean cable, the first soundings across the Atlantic were made by American officers in American ships. Our scientific men—Morse, Henry, Bache, and Maury—had taken great interest in the subject. The U. S. ship *Dolphin* discovered the Telegraphic Plateau as early as 1853; and the U. S. ship *Arctic* sounded across from Newfoundland to Ireland in 1856, a year before H. M.'s ship *Cyclops*, under command of Capt. Dayman, went over the same course. This I state, not to take aught from the just praise of England, but simply to vindicate the truth of history.

It was not until 1856—ten years ago—that the enterprise had any existence in England. In that summer I went to London, and there, with Mr. John W. Brett, Mr. (now Sir) Charles Bright, and Dr. Whitehouse, organized the Atlantic Telegraph Company. The expedition of 1857 and the two expeditions of 1858 were joint enterprises, in which the *Niagara* and *Susquehanna* took part with the *Agamemnon*, the *Leopard*, the *Gorgon*, and the *Valorous*; and the officers of both navies worked with generous rivalry for the same great object. The capital—except

one quarter, which, as you have said, was taken by myself—was subscribed wholly in Great Britain. The Directors were almost all English bankers and merchants, though among them was one gentleman whom we are proud to call an American, Mr. George Peabody, a name honored in two countries, since he has showered his princely benefactions upon both; who, though a resident for nearly forty years in London, where he has gained abundant wealth and honors, still clings to the land of his birth; declining the honor of a baronetcy of the United Kingdom to remain a simple American citizen.

On the third trial we gained a brief success. The cable was laid, and for four weeks it worked—though never very brilliantly—never giving forth such rapid and distinct flashes as the cables of to-day. It spoke, though only in broken sentences. But while it lasted no less than four hundred messages were sent across the Atlantic.

(To be continued.)

DISTRICT PROCEEDINGS.

ST. JOSEPH DISTRICT.—Regular meeting held September 4th.

The officers elect for the ensuing year (Mr. Gould, District Director and Treasurer; Goulding, Secretary) being called forward to the chair, took their respective places.

Minutes of last meeting approved.

The Director, appointed Mr. Woodring his council for the year.

After few remarks by Mr. McDill in relation to Convention, as also remarks by Mr. Woodring, reminding members of close of Volume 2 of THE TELEGRAPHER, etc., adjourned.

REGULAR MEETING, Oct. 7th. Minutes last meeting approved.

The Treasurer then made a report as follows:

Dr.				
Balance in Treasury last report,				\$2 80
Fines,				2 00
				<hr/> \$4 80
Cr.				
Postage stamps,				50
Subscription to THE TELEGRAPHER,				\$2 00 2 50
Balance in Local Treasury,				2 30
				<hr/> \$4 80

Rules being suspended in order to allow our delegate to the Convention, Mr. McDill, an opportunity of reporting, that gentleman proceeded at length, giving details as far as possible.

The report was approved, and the action taken by Mr. McDill highly applauded by all.

There being no other regular business on hand adjourned.

REGULAR MEETING, November 4th. The Director in the chair.

No quorum. Meeting adjourned to November 11th, 1866.

ADJOURNED MEETING, November 11. Treasurer reported as follows:

Dr.				
Dues of ten members for third quarter,				\$15 00
Dues two members second and third quarter,				6 00
				<hr/> \$21 00
Total,				
Cr.				
Cash to Treasurer,				\$21 00

On motion of Mr. McDill, the Treasurer was authorized to purchase a bound copy of Vol. 2 of THE TELEGRAPHER, a special tax to be levied for that purpose.

Mr. McDill gave notice would offer some amendments Local By-Laws next regular meeting. Adjourned.

MAINE DISTRICT.—Regular meeting.

The case of Mr. Rowe, who was thrown out of employment by the consolidation July 1st, was brought before the meeting by the Director, who stated that Mr. Rowe wished to remain a member of the District, and, if necessary to do so, was willing to pay his assessments as they become due; but as he has made no application for a situation (Art. II, Sec. 2), and will make no such application, he wishes the District to remit his dues until he gets employment. His dues are now paid to July 31st.

Mr. Collamore, of Bangor, moved "that Mr. Rowe's dues be remitted while he is out of employment, not exceeding one year, and that the case be referred to the Executive Committee for confirmation."

Mr. Smith, of Portland, moved "that the District

Director make application for the aid provided by Constitution for Mr. Rowe, to extent that will cover his dues during his idleness or non-employment."

After considerable discussion both were withdrawn, and the following offered by Mr. Smith, of Portland, and adopted:

"Resolved, That James Rowe, being willing to accept the remittance of his dues during his non-employment, in lieu of any other claim for assistance from the Union, therefore, we believe it would be proper and just to so remit the dues, and that we respectfully request the Executive Committee to do so if within their power to decide it."

Adjourned.

PRIORI DISTRICT.—Regular meeting Oct. 6th. All but two present.

Reading of the minutes of the previous meeting dispensed with.

On motion of Mr. Smith, Mr. Reployles, of Wapella, was admitted to membership.

No further business. Adjourned.

REGULAR MEETING, November 3d. No quorum. Adjourned.

PHILADELPHIA DISTRICT.—Adjourned regular meeting, Nov. 12.

Report from the Director calling for action of meeting upon certain delinquent members, three of whom were expelled for non-payment of dues, etc.

A petition was received from several members, asking an extension of time in their cases. One month was granted them.

Messrs. R. J. Black and M. D. Buckwell were elected correspondents to THE TELEGRAPHER.

Wm. Dyer made application for transfer to Philadelphia District from Cincinnati.

On motion, a committee of five was appointed by the chair for the purpose of laying before our next meeting information in reference to the first grand ball to be given by this District, the proceeds of which are to be appropriated for defraying expenses of club-room.

CHICAGO DISTRICT.—Regular meeting, Nov. 12th.

Minutes of last meeting approved.

Treasurer's report shows \$26 94 in treasury.

Mr. York offered following resolution, which was unanimously adopted:

"Resolved, That a vote of thanks of the District be tendered to members of Baltimore, New-York, and Boston Districts for courtesies tendered our delegates at the late Convention."

Mr. York, as chairman of Committee on Delinquencies, reports as follows:

"The Committee of Investigation, appointed to examine and report upon delinquencies, desire to state that all those gentlemen who are in arrears, and whose names are furnished us for the purpose of notification, have been duly informed (with the exceptions of three or four whose whereabouts we were unable to learn) of their indebtedness to the Union, and the amount of the same, agreeably to our instructions. Although ample time has been allowed, but two remittances have been made. Resting our judgment upon this criminal indifference and neglect, the committee would recommend a publication of such of these names as the Director shall determine in THE TELEGRAPHER, together with a statement of their offense in conformity with an act passed by the late Convention, as set forth in the amended Constitution."

"G. C. York, Chairman,

"J. N. BRADLEY, and others, Com."

Following is list of names ordered published:

C. H. Seaver, T. M. Fish, H. C. Westby, H. C. Vanhorn, L. C. Johnson, C. D. Sprague, J. H. Briggs, A. T. McElheney, George H. Cook, J. H. Parsons, W. T. Lindley, J. G. Conner, H. C. De Pue, G. Skinner, S. J. Heath, W. H. Wallace, J. O. Byrns, G. H. Rice, J. C. Bush.

D. F. Wadsworth and C. S. Johnson were elected members of the Union.

Meeting then adjourned.

ST. LOUIS DISTRICT.—Regular meeting Nov. 11th. Minutes of last meeting approved.

Applications for membership were received from J. H. Rhodes, Amos B. Markley, E. L. Todd, and H. A. Keely, and referred to committees, who were instructed to report at the next regular meeting. An application from Mr. C. D. Thomas for membership in this District was also presented. Mr. Thomas states that he was a member of the Cincinnati District at the time it was discontinued, and the records turned over to the Executive Committee, and that since then he has not been connected with any District. His case was referred to a committee, who were instructed to make the proper investigations and report at the next regular meeting.

The committees to whom were referred the applications

of J. H. Mellen and M. Hohl reported favorably, and they were unanimously elected to membership. On motion, the rules were suspended and the committee in the case of J. H. Rhodes instructed to report at once. Their report being favorable, he was unanimously elected a member of the Union.

The District Treasurer's report of delinquent members whose dues were unpaid for six months or more was received; ordered placed on file.

The committee appointed at the meeting in October to notify all members who were six months or more in arrears, that, unless payment should be made before the November meeting, they would be suspended or expelled, reported that the District Treasurer had furnished them with a list of twenty-eight members who were from six to eighteen months behind, and that they had notified them as instructed, with the exception of one member, of whose death they were pained to learn. The report was accepted and the committee discharged.

The District Treasurer reported that but six of the members notified by the committee had forwarded their dues to him.

The cases of those members still in arrears were then taken up and on motion were expelled for non-payment of dues. For "good and sufficient reasons" the cases of a few others were laid over for future action, unless in the meantime a proper settlement should render it unnecessary.

On motion, a committee of five members and the Director were appointed to draft suitable By-Laws for the District.

The Director announced that it was necessary to elect a delegate to fill the vacancy caused by the resignation of Mr. N. C. Pamplin, and that nominations were in order. Mr. I. McMichael was then nominated for that office, and Messrs. C. D. Hay, J. H. French, and R. H. Tracy appointed to conduct the election.

Mr. S. E. Ingram presented his resignation as a member of the Union, to date from January 1st, 1867, which was accepted.

On motion, the Director was instructed to grant Mr. Thom a transfer to the Detroit District, as per his request.

Adjourned.

CORRY DISTRICT.—Regular meeting Nov. 8.

Reading of the minutes of preceding meeting postponed.

Remarks by the Director in regard to the condition of the District, also of the favorable condition of the N. T. U.

Report of the Treasurer accepted.

On motion, the rule was suspended and Mr. Jos. W. Godfrey, of Renova, elected member.

On motion, it was

"Resolved, That each member of the District pay an assessment of fifty cents to liquidate a small balance in favor of the Union."

On motion, a committee of three was appointed to examine the books and accounts of the District Treasurer.

Messrs. Crawford, Wade, and Dwyer were appointed such committee.

It was moved further, that this committee be instructed to act as an executive committee. Adjourned.

NEW-YORK DISTRICT.—Adjourned regular meeting, Nov. 13.

Minutes of previous meeting approved.

The Director announced the transfer to this District of James T. Maxwell, from Harrisburg, Chas. G. Demoll, from Washington, and Gerritt Smith, from Boston.

Mr. Kirchner, proposed at previous meeting, elected a member by a unanimous vote.

Mr. Collins presented his report in the Gordon case. Report accepted and committee discharged.

Report of Committee on the Ball Committee's Report presented; it was sent back to Ball Committee for correction.

The committee on "Clause 4, Art. I," of the By-Laws, presented the following substitute for that clause: "Each member shall pay into the treasury of this District the sum of three dollars per year, to be collected by the Treasurer monthly in advance." Adopted.

The Committee on Entertainment reported that Irving Hall and the music have been engaged for the first of February, 1867.

The report of the Committee on the Delegates' Report not ready this evening, they asked an extension of time, which, after considerable opposition was granted them.

The Committee on the Affairs of Late District Director asked an extension of time. Upon motion, they were instructed to report at next meeting without fail.

Mr. Scully moved that a vote of thanks be given to the Baltimore District for their kind attention to the New-York delegation while attending the late Convention, which was carried unanimously.

Mr. Pannell moved that a select committee of three be appointed to take into consideration the case of Mr. Pope, a member of the Union, and report fully upon it at the next meeting. Carried. Messrs. Pannell, Smith and Scully were appointed such committee.

Mr. Clark then presented the following resolution:

"Resolved, That the minutes of the last meeting as recorded by the Secretary, be and they are hereby made as valid and binding as though a quorum were present."

This resolution, a vote being taken, was adopted unanimously.

On motion of Mr. Scully, Mr. Pannell was appointed correspondent of THE TELEGRAPHER for the New-York District. Adjourned.

MEMPHIS DISTRICT.—Regular meeting Nov. 4th.

The Secretary reported that he could find nothing in the Constitution which bore on the case of Mr. McHenry who had temporarily retired from telegraphy to engage in another business, but who again intended to resume the active practice of his profession, and therefore concluded to await the decision of the District before acting in the matter as instructed by the last meeting. A long discussion on this subject ensued. Mr. Bohanna moved the Secretary be instructed to lay the case before the Executive Committee, and report their decision at the next regular meeting.

The election of members being in order, the Director proposed the following names, all of whom possessing the requisite qualifications were elected:

T. F. Marshall, Granada, Miss.; John Chandler, Pine Bluff, Ark.; John M. Thomas, Paris, Tenn.; E. C. Newton, Little Rock, Ark.; F. C. Whitthorne, Paris, Tenn.; B. H. Lucas, Grand Junction, Tenn.; George Dugan, Bolivar, Tenn.

Mr. Sears stated that Mr. R. B. Lines, of Corinth, formerly of Nashville District, wished to join this, and desired to know how he could procure a transfer, as the Nashville District had dissolved.

Mr. Spinner informed the meeting that the decision of the President in regard to old members of the Nashville District was, they could join any other by paying the amount of their back dues, providing they had never been expelled from the Union, and moved Mr. Lines be received into the District on these terms. Mr. Spiner's motion was carried.

On motion, the Secretary was instructed to notify Mr. Lines of the decision of the District.

The report of the committee appointed to convey a vote of thanks to Mr. W. L. Biggert, of Louisville, was read, approved, and ordered placed on file.

Director reported six new subscribers to THE TELEGRAPHER. No more business being before the District, the meeting adjourned.

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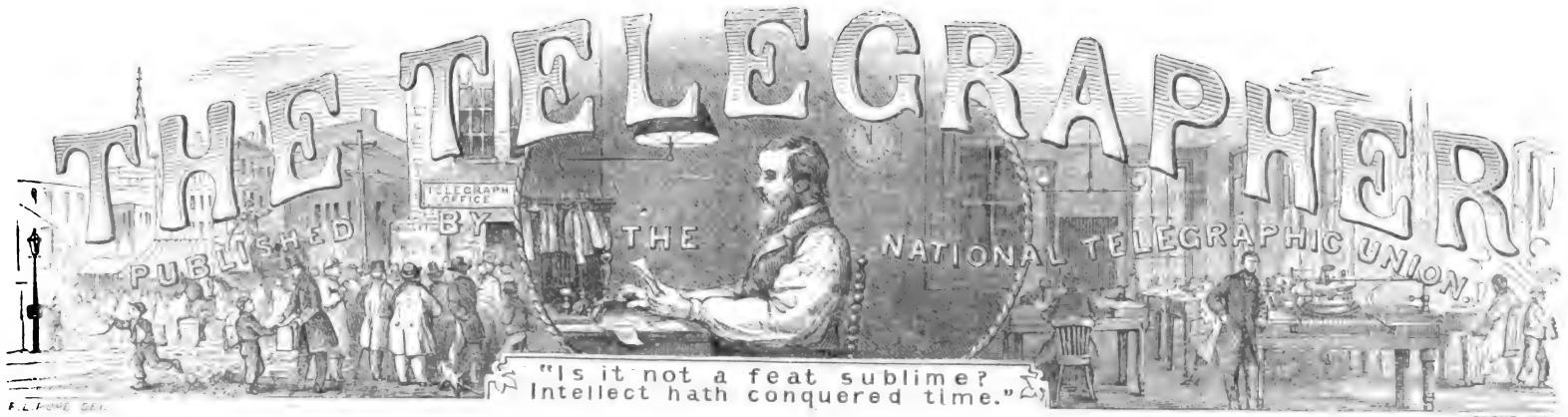
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Vol. III.

New-York, Saturday, December 15, 1866.

No. 42.

THE INVISIBLE WIRES.

BY CATHERINE M. TROWBRIDGE.

NATURAL objects have been teachers of spiritual lessons ever since time began. Mountain, valley, wood, stream, cloud, and sunshine, has each had its appropriate lessons for man, and inspiration has given to each a voice of utterance, clear and distinct. Inventions of art and discoveries of science, too, have their lessons, so that new teachers are continually coming upon the stage and speaking to those who have ears to hear.

An example of this we find in the electric telegraph, that wonderful discovery of the age. Great thoughts of the invisible communication between heaven and earth have been suggested by it, and still, as we view it, we may gather fresh lessons from its teachings. Prayer has been called the telegraph line from earth to heaven. Is not the invisible fitly typified by the visible, which seems itself only in part a thing of sense, an object occupying the boundary line between the visible and the invisible? Should not every skeptic stand rebuked when he receives a message over these wires? He believes in the message just received from a distant city, but he does not believe in messages sent from the heavenly world. He does not understand the mode of communication in the latter case. Does he understand it in the former? He does not believe in mysteries. Is there no mystery here? He trembles when the visible wires signal to him of disaster or death, but heeds not the solemn notes of warning that speed along the invisible wires. How absurd and inconsistent is unbelief! How rational and reasonable is faith!

Telegraph lines are now very numerous; so are those of which these are a type. The latter, however numerous, have one common terminus. A new line is completed every time a soul is born into the kingdom of grace. In heaven the completion of each new line of communication is celebrated with songs of joy and shouts of triumph. Over one just completed passed the message, "God be merciful to me a sinner," and quick as the lightning's flash, the message is returned, "Be of good cheer; thy sins are forgiven thee."

At the end of another line is a sick-bed, on which lies a weary sufferer. Again and again the message passes over the line, "O Lord, heal me! If it be thy will, let this cup pass from me." The message returned is similar to the one received by the great Apostle, "My grace is sufficient for thee; for my strength is made perfect in weakness." Strengthened and comforted, the sufferer feels that he has received a message from heaven.

Again a mother whose little ones are crying for bread which she has not to give, sends speeding over the wires a cry for help, and quick as thought another message speeds away to the heart of a Christian neighbor, and he feels a sudden impulse to go to the lonely widow, and see if she is in need.

Sometimes in the same instant the message is sent and the answer is returned. Again, the answer is long delayed. Once a Christian mother sent over these invisible

wires messages of prayerful entreaty for her son. That son grew up willful, reckless, obstinate. After years of sin, he sickened, and was carried to a hospital, in a country far from the land of his birth. A faithful minister came to his bedside to bring the gospel of glad tidings. He would not listen, but turned his face to the wall. Ah! where were those messages which passed from earth to heaven so many years before? They have not been forgotten. The answer is speeding. That man of God determines to make one more effort. He sits down by that bed, and sings a song his mother taught him in his childhood. The man's heart is reached now. He turns, and with a tear in his eye, asks,

"Where did you learn that?"

"My mother taught it to me."

"And my mother taught it to me!" he responds, now melted and subdued, ready to listen to the message of love which the gospel minister is yearning to impart.

Believe it, trembling Christian, no message traveling over these wires is ever lost. If no answer has been received, it is waiting for you somewhere in the future. Employ, then, without ceasing, this line of communication between heaven and earth.—*S. S. Times.*

Successful Laying of the Telegraph Cable Between the Main Land and Victoria.

The following is an account from a Victoria paper of how telegraph lines are built in Oregon and Washington Territory, and how the cable was laid between the main land and Victoria, on Vancouver Island:

"The telegraph connecting this colony with 'the rest of mankind' is an institution of so much interest that we may be pardoned for devoting considerable space in glorification over its completion. We propose to sketch a brief history of the last two years' operations of the company while extending the wire toward this colony. In March, 1864, the California State Telegraph Company completed communication with the city of Portland, Oregon. This connection having proved somewhat successful, the company decided to push still further north, and accordingly sent one of its officers to explore the wilderness as far as Olympia, the capital of Washington Territory; but so determined were those in control that the line should be constructed, that a report was not waited for, and an order was issued to build, regardless of the obstacles offered by flood or forest. In obedience to the order the posts were contracted for, the wire freighted to the only accessible points by steam or wagon, and, after appropriately celebrating their nation's birthday, the party of fifteen men—with three light wagons, drawn by six horses—left Portland on the 5th day of July. The beautiful Willamette River was spanned by a wire suspended from a mast on one bank one hundred and eighty feet in height, and on the other side from a majestic fir-tree of two hundred feet in height; thence a land line of seven miles brought the party to the majestic Columbia River, which was crossed by a submarine cable of one and a quarter miles in length. Thence the route lay in nearly a northerly direction along the bank of the Columbia River for a distance of forty miles, and in the track of the Hudson Bay pioneers. Over the most of this distance a wagon had never before rolled. Bridges had to be built, rafts constructed, and roads cut sufficient to allow the wagons to pass. Ferrying across the Cowlitz River, near its junction with the Columbia, the telegraph builders entered upon an apology for a wagon road leading to Olympia, which was mainly followed. Olympia was reached on the 4th of September, the party having built one hundred and twenty miles of line and forty miles of road in sixty days. On the following day the order came again, 'On to the north!' and with the motto '*Excelsior*' chalked on the signal-flag of the engineer, the party bore away for Seattle, following the United States Government trail. The distance of eighty two miles was accomplished in about forty days, some delays having been occasioned by the non-arrival of material. The last of October brought an order for a still farther advance—to Frazer River—two hundred miles distant. The rainy season had commenced, the country before the party was *sans* roads, *sans* trails, *sans* white folks, *sans* everything but almost impenetrable forest—so dense that settlers could not be lured by a free gift of the soil to occupy it. Wagons were abandoned, and making our own little British steamer Union the base of supplies, the party skirted the eastern shore of Puget Sound and the Gulf of Georgia, braving the storms of an unusually inclement winter, clambering every cliff, tearing through every thicket, and crossing every river—and, worse than all, packing poles and wire over every foot of the ground—until British Columbia was telegraphically united to the great Republic. Four hundred miles of line were thus built in nine months—three hundred miles of it being through a forest unsurpassed for density on the American continent. The line to connect with Victoria was in the meantime under contemplation, and the cable to cross the straits was on its way from Europe; but an unlucky storm off Cape Horn submerged both ship and cable. Another cable was immediately ordered, and reached San Francisco in November last. The distance from Victoria to Portland is three hundred and forty-six miles, eighteen of which are submarine. The wire crosses fourteen rivers and passes through denser forests than a telegraph wire was ever before laid through. It is by far the most expensive line on the continent, and much the most difficult to maintain. And the great work has been accomplished without calling for a single dollar of stock from the business communities through which it passes, or in which it terminates. In completing the cable work the Colonial Government cheerfully yielded to a request of the company, and placed the gunboat Forward, Lieutenant Commanding Fox, at its disposal. We learn from the telegraph constructors that the gunboat admirably answered their purpose. In fact, they are enthusiastic in praise of the boat and her officers. They found in the latter not only willing hands, but an earnestness and enthusiasm that from the very start promised success to the enterprise; and they assert that to Commander Fox, his en-

THE TELEGRAPHER.

gineers (Williamson and Gray), and First Officer Calver, they feel indebted for the completion of the work, and request that the sense of obligation they feel should be known to our citizens and to the Government, whose liberality was so nobly seconded by these gentlemen. We should be unjust to withhold from the blue jackets of the Forward the praise due them for the able manner in which they did their duty. All worked with a will and cheerfulness that were at once praiseworthy and gratifying. Haines was ably aided in the exciting and trying duty of submerging the cable by Vandenburg, an associate assistant of his company, and one of the first electricians in the country. We congratulate our citizens on the successful completion of the line, which we commend to their generous patronage."

The Submarine Cables of Europe.

We subjoin a complete list of submarine cables now in successful working order, the insulated wires for which were manufactured by the Gutta Percha Company of London.

We give the date of the laying of the cables, the length of each of the insulated wires in British statute miles, and the names of the points between which they are laid.

DATE.	ROUTE—From	Lengths of Cable in Miles.	Length of Insulated Wire in Miles.
1851.	Dover to Calais.....	27	108
1853.	Denmark across the Belt.....	18	54
1853.	Dover to Ostend.....	80 $\frac{1}{4}$	483
1 ^o 53.	Firth of Forth.....	6	24
1853.	Portpatrick to Donaghadee...	25	150
1853.	Across River Tay.....	2	8
1854.	Portpatrick to Whitehead....	27	102
1854.	Sweden to Denmark.....	12	36
1854.	Italy to Corsica.....	110	660
1854.	Corsica to Sardinia.....	10	60
1855.	Egypt.....	10	40
1855.	Italy to Sicily.....	5	15
1856.	Strait of Canso to C. Breton, N. S.	1 $\frac{1}{4}$	41
1857.	Norway across Fiords.....	49	49
1857.	Across mouths of Danube.....	3	3
1857.	Ceylon to main land of India..	30	30
1 ^o 58.	Italy to Sicily.....	8	8
1858.	England to Holland	140	560
1858.	England to Hanover.....	280	660
1858.	Norway across Fiords.....	16	16
1858.	S. Australia to King's Island..	140	143
1858.	Ceylon to India	30	30
1859.	Alexandria.....	2	8
1859.	England to Denmark.....	368	1104
1859.	Sweden to Gothland.....	64	64
1859.	Folkestone to Boulogne	24	144
1859.	Across Rivers in India	10	16
1859.	Malta to Sicily.....	60	60
1859.	England to Isle of Man.....	36	36
1859.	Suez to Jubal Island.....	220	220
1859.	Jersey to Poror, France	21	21
1859.	Tasmania to Bass Straits....	210	240
1860.	Denmark to Great Belt.....	28	126
1860.	Dacca to Pergu.....	116	116
1860.	Barcelona to Mahon.....	180	180
1860.	Minorca to Majorca.....	35	70
1860.	Iviza to Majorca.....	74	148
1860.	St. Antonia to Iviza.....	76	152
1861.	Norway across Fiords	16	16
1861.	Toulon to Corsica.....	196	195
1861.	Holyhead to Howth, Ireland..	64	64
1861.	Malta to Alexandria	153 $\frac{1}{2}$	153 $\frac{1}{2}$
1861.	New-Haven to Dieppe.....	80	320
1862.	Pembroke to Wexford.....	63	252
1862.	Firth of Forth.....	6	24
1862.	England to Holland	130	520
1862.	Across River Tay.....	2	8
1863.	Sardinia to Sicily.....	243	243
1864.	Persian Gulf.....	1450	450
1864.	Otranto to Avlona.....	60	60
1865.	La Calle to Baserte.....	97 $\frac{1}{2}$	97 $\frac{1}{2}$
1865.	Sweden to Prussia.....	55	66
1865.	Bisserte to Marsula.....	164 $\frac{1}{2}$	164 $\frac{1}{2}$
1865.	Corsica to Tuscany.....	66	66
Total.....		68,111	1,080 $\frac{1}{2}$
Total number of cables.			54

A great many cables of short lengths, not included in this list, are now at work in various parts of the world; and other cables, the wires insulated by the Gutta-Percha Company, have been laid by Messrs. Felton and Guelerne, of Cologne, during the last eight years, amount to over 1000 miles, and which are now in working order.

PICTURES FROM A TELEGRAPHER'S WINDOW.

A MORCEAU OF LIFE-DRAMA.

ODDLY quaint often are the note-takings which one may jot at random, and which at random from daily observation in these papers are jotted, from one's window, supposing one takes the trouble to paint little dramatic pictures of the outer sense of things as they fit before him; but more strangely suggestive still are those glimpses of the inner sense of things, when the veil is half lifted. There are sorrows and lunacies in the world, of which the bare looker-on in this Vienna of the planetary system never dreams. There are people whose hearts stoop down with grief while their lips laugh; there are those who have visionary lunacies of speculation whom their fellows suspect of no business insanity; and there are those in whose heads whims skip like grasshoppers whom people in general believe to be the soberest and most common-sense-ical folk imaginable. The old proverb to the effect that one half of the world knows nothing of the other half is not *per se* sufficiently sweeping to include the whole philosophy of the subject, although it contains a grain or more of essential truth. The true version of the idea is that nobody in the world knows anything of anybody else. Thus everybody is a sphinx, which everybody else seeks to unriddle—a conundrum at the key of which everybody else guesses—a sort of Grecian enigma, to which everybody plays the Oedipian, and, so playing, is baffled, puzzled, and bedeviled in wits. There are nobler unwritten novels in real life than the invention of Dickens has ever conceived, and there are deeper mysteries in the daily sense of things than an Elusynian could ever invent. Tragedies, comedies, farces, and burlesques are enacted here and there and everywhere; and we neither weep, nor laugh, nor grin, nor appreciate, because the plot is hidden, and we have no clue to the inner sense of the acting.

A day or two since, I was set thinking and ruminating by a single telegram and its circumstances. An elderly man, obviously indigent, came into the office the other morning, holding in his hand a crumpled bit of paper. "On one of our blanks, please," I answered, half in reply to his appealing look: "On one of our blanks, please; can't send it without"—and the tottering gentleman turned away to the desk, at which I pointed, to follow my direction. A few trembling pen-strokes—between which he seemed to pause as if he were losing his breath, while I noticed suspicious drops falling from his eyes upon the paper, which he carefully wiped away—a few strokes of the pen, and he returned and stood before my window, handing me the telegram, which I took in my usual indifferent way, and began to count the words, without minding what their sense was.

"Forty-five cents," I muttered, after a moment's counting; and, fumbling in his vest pocket, the gloomy old gentleman produced a worn and battered fifty-cent stamp and handed it to me, while I checked the telegram with certain cabalistic marks which betoken a certain cabalistic something to the superintending business-man.

"Read that, please," said the man appealingly and in a broken voice. "Read that, please; and, if you can, have it forwarded immediately."

I looked up, arrested in attention by the breaking voice in which he spoke. Then I looked down, and read:

"If mother is yet living, kiss her for me. I am too poor to come."

A name, a date, a direction—and these completed the message. Short enough, simple enough, explicit enough, so far as it went; but there was a great deal more in it

than it said. The man's mother was dying, and he would kiss her before she went, but was, alas! too poor to afford the luxury of a kiss, except in that strange, proxy way—by telegraph.

I looked up again. The man was in tears; and this time the water in my own eyes was suspiciously near to overflowing.

"It shall be sent immediately," said I, with a lurking tremor on my tongue, and a queer substance seeming to block up the passage of my throat. "It shall be sent immediately, sir."

I repeated the words the second time in an abstracted way, and a tear fell on the back of my hand as I looked down.

"Thank you, sir. God bless you," was the reply of the gloomy gentleman; and with a long breath he took up again the common thread of his existence, vaguely hoping, no doubt, to weave a better woof before he should be kissed his last.

Simple happenings are these. But simple as they are, they enfold within themselves no little of the by-play in the great tragedy, some *role* in which we are compelled to play, will we or nil we; and to him who is fond of looking beneath the surface of things they are full of moral meaning. Like the miner he delves, and like the miner may he say.

"Down 'mid the tangled roots of things
That coil about the central fire,
I seek for that which giveth wings
To stoop, not soar, to my desire."

For all who seek to comprehend more than the simple fact that the plot of the tragedy is incomprehensible are simple delvers amid the

"Tangled roots of things,"

and very often delve in vain; for the p'ot of the tragedy, parts of which we play, is a riddle, the end of which is our only Oedipus. And thus we are made to comprehend at last, if we wish not, that which we cannot at first comprehend, even if we so wish; and at this point of comprehension the *circuit* is broken, and we cannot telegraph back to men our own comprehension of the riddle of the tragedy which they play and which we have played unto its end.

C. H. H. PANNELL.

BROOKLYN, October, 1866.

Cheap Electricity.

By far the most important of recent discoveries in the electrical field has lately been made by Mr. H. Wilde, of Manchester, who has found that "an indefinitely small amount of magnetism or of dynamic electricity is capable of inducing an indefinitely large amount of magnetism, and that an indefinitely small amount of dynamic electricity or of magnetism is capable of evolving an indefinitely large amount of dynamic electricity." The apparatus by means of which he has obtained these remarkable results is described as consisting of "a compound hollow cylinder of brass and iron, termed a magnet-cylinder, the internal diameter of which was 1 $\frac{1}{2}$ inches. On this cylinder could be placed at pleasure one or more permanent horse-shoe magnets. Each of these permanent magnets weighed about one pound, and would sustain a weight of about ten pounds. An armature was made to revolve rapidly in the interior of the cylinder, in close proximity to its sides, but without touching. Around this armature 163 feet of insulated copper wire, 0.03 of an inch in diameter, was coiled, and the free ends of the wire were connected with a commutator fixed upon the armature axis, for the purpose of taking the alternate waves of electricity from the machine in one direction only. The direct current of electricity was then transmitted through the coils of a tangent galvanometer; and as each additional magnet was placed under the magnet-cylinder, it was found that the quantity of electricity generated in the coils of the armature was very nearly in direct proportion to the number of magnets on the cylinder. Experiments

were then made for the purpose of ascertaining what relation existed between the sustaining power of the permanent magnets on the magnet-cylinder and that of an electro-magnet excited by the electricity derived from the armature. When four permanent magnets capable of sustaining collectively a weight of 40lbs. were placed upon the cylinder, and when the sub-magnet was placed in metallic contact with the poles of the electro-magnet, a weight of 178lbs. was required to separate them. With a larger electro-magnet, a weight of not less than 1080lbs. was required to overcome the attractive force of the electro-magnet, or twenty-seven times the weight which the four permanent magnets used in exciting it were collectively able to sustain. It was further found that this great difference between the power of a permanent magnet and that of an electro-magnet excited through its agency might be indefinitely increased." It would thus seem that the problem of the economic application of electricity as a source of motive-power is nearer its solution than most of us had imagined.

A PRESENTATION.

A VERY elegant and valuable tea-service, etc., was on Saturday, Nov. 3d, presented to Mr. Cassils, by the employés of the Eastern Division of the Montreal Telegraph Company. The following inscription is neatly engraved on the principal pieces, while on the reverse side are the initials of Mr. Cassils:

Presented to

WILLIAM CASSILS, ESQ.,

as a token

OF AFFECTION AND ESTEEM,

by 44 Telegraphers.

We append the address of the operators, together with Mr. Cassils' reply:

QUEBEC, November 3d, 1866.

To Wm. Cassils, Esq.:

DEAR SIR:—We, the undersigned telegraph operators, beg to tender to you our sincere regret that you are about to leave our profession.

The courtesy, consideration, and impartiality we have ever received from you while in the discharge of our duties, has effected ties of respect and endearment which time will never efface, and make us feel that in parting with you we are losing a true and kind friend.

We feel we are only paying a deserved tribute to you when we say that the profession, by your resignation, is losing a talented, eminent, and experienced member.

Much as we regret your retirement from a position which you have so long and creditably filled, we ardently hope that the change you make may be beneficial to you.

In taking leave of you we beg your acceptance of the accompanying silver tea-service, album, and pencil-case, as slight tokens of our affection and esteem.

Please to convey to Mrs. Cassils our expressions of respect and best wishes, hoping that long life, happiness, and prosperity may attend you both.

In behalf of operators of the Eastern Division of the Montreal Telegraph Company,

We respectfully subscribe ourselves,

FRANK DRUMMOND,
JAMES BARCLAY, } Committee.
ROBERT McCORD.

DAVID LAWSON, Sec. and Treas.

To which Mr. Cassils returned the following reply:

GENTLEMEN:—I beg to express my warmest gratitude to you for the address and testimonial with which you have been kind enough to present me.

It needed not this expression of your esteem to convince me that such feeling existed. The long and intimate intercourse which has subsisted between us has not been without the effect of promoting and strengthening mutual friendship.

In taking leave of those who for many years have so ably assisted me in the discharge of the duties we owe to

our employers and the public, it is to me a matter of great satisfaction to be able to reflect that not a single unpleasant incident has ever occurred to mar the harmony of our efforts in that direction, and now that our business connection is about to be severed, I can only trust that we shall never cease to entertain for each other feelings of warmest friendship.

The very handsome service of plate, etc., which you have presented to me, I shall value not only because it is intrinsically valuable, but far more as an expression of those feelings of affection and respect which prompted the gift.

Accept my most sincere thanks, and those of Mrs. Cassils for your very kind wishes for our future welfare. I need hardly assure you that these wishes are heartily reciprocated. I am, gentlemen,

Your affectionate friend,

WILLIAM CASSILS.

We notice in *The Quebec Chronicle* an address signed by all the prominent citizens expressing their regret at the departure of Mr. Cassils from that city. This gentleman appears to have received the esteem and good wishes of everybody there. Mr. C. intends commencing business in Montreal.

The Canadian operators in Uncle Sam's dominions learn with regret that Mr. Cassils leaves the profession, and heartily unite with their brother operators of the Montreal Company in wishing himself and lady long life, success, and prosperity.

An Editor's Fix.

To make a newspaper that shall please everybody is entirely out of the question—afeat no man has yet performed—leastwise, we have never heard of him. The tastes of humanity, we have learned, after a good many years of observation, differ, and different intellectual pabulum is required to satisfy these different tastes. An editor is expected to cater to them all; but if he attempts to please all, he will fail—he's a goner. If we try to satisfy everybody with our paper, we should find our greatest obstacles in its *local* columns. In them our town readers discover more food for complaint than elsewhere. Though on the whole entertaining, not an issue appears that somebody does not find fault with something. Doctor A. thinks we have no business to tell our readers that Doctor B.'s pills are more powerful in their operation than his; Lawyer Briefless complains that we said that Lawyer Sourrebuter's argument in the great dog case was a clincher; sober Mr. Whatyoucall'em gives it as his deliberate and duly matured opinion that the "local column" is imbued too strongly with the spirit of sinful levity; Mr. Yardstick thinks the "local" has too much to say about Mr. Sandsugar's codfish, and not enough about his calicoes; the young ladies say we have too much to do with their waterfalls, but are delighted when we attempt sharp things on the old maids, who, in turn, give us fits for not punching with our pencil the young ladies' waterfalls more vigorously. So it is—*somebody* finds something to find fault with, and, after having canvassed the subject thoroughly, looked it all over, turned it end-for-end, set it up edgewise, and pondered over it, we have come to the conclusion that the best way is to try to please ourselves, and, if we succeed, we are certain of one who will not find fault with the "local."—*Berkshire Courier*.

THE St. Petersburg *Borsen Zeitung* says that all preparations on the main land and the soundings in Behring Straits for the completion of the line of telegraph between Russia and America are nearly finished. In the course of the present year, the telegraph will be constructed over a distance of three thousand five hundred miles beyond Revel, and the lines will be finished from Grantley Haven to the Kwickpak, and along the valley of this river from the mouth of the Anadyr to Fort Anadyr, from Okhotsk to Gischiga, and perhaps even as far as to

be joined with the Anadyr line. The cable between Grantley Haven and Ssenjavin Bay, a distance of about seven hundred miles, and that between Cape Sponberg and Cape Tolstoi, in the bay of the Anadyr, will, it is said, be laid before the end of this month. American and Russian energy have been very quick in taking steps to complete the tie which is to connect and hold together the two nations, whose new alliance, though baptized in champagne and heralded forth by a bouquet of fireworks, cannot be regarded without a slight feeling of uneasiness by some of the more westerly nations of Europe.

Telegraph Companies Common Carriers.

DAMAGES FOR NON-DELIVERY OF A MESSAGE.

A SUIT of some interest was tried a short time since in the Court of Common Pleas of Lancaster County, Penn., it being that of M. G. Wenger vs. The United States Telegraph Company. *The Lancaster Intelligencer* says: "The question at issue involved the rights and liabilities of telegraph companies, the law regulating these cases being somewhat uncertain, inasmuch as there were very few, if any, tried in this State, and none, we believe, in this country. The main features of this case were these. On the 10th day of October, 1864, the plaintiff, then a dealer in stocks, ordered through his agent, George K. Reed, of the firm of Reed, McGrann & Co., bankers of this city, the purchase of fifty shares of Northwestern and fifty shares of Prairie du Chien Railroad stock. Mr. Reed immediately called at the business office of the company, left the dispatch, paid for its transmission to the firm of William & J. O'Brien, bankers, No. 58 Wall street, New-York, with whom Reed, McGrann & Co. did their business. The latter, according to custom, duplicated the order by letter, in which they referred to the telegram sent. The letter arrived in due course on the following day, but the telegram never reached New-York. Mr. Potts, the operator here, testified that on inquiry he could only trace it to Philadelphia. It appears that the Messrs. O'Brien did not act upon the letter, because they supposed the order had reference to another transaction, and probably required explanation.

"During the several days consumed in the effort to buy and to find out where the mistake rested, stocks advanced in price. The order, however, was filled on the 13th of October, in pursuance of another telegram sent through this or the other company, but at an advance of about \$462 50 more than the stocks could have been purchased on the 10th, to recover which difference the suit was brought. The Court, Judge Hayes, substantially charged the jury that the defendant was a 'common carrier'; that as such it was responsible in damages for the non-delivery in this case of the telegram sent or ordered so; and that the measure of damages was the difference between what the stocks could have been bought for on the 10th of October and what they cost on the 13th, when the purchase was made. The jury found a verdict for the plaintiff for \$486 60 and costs."

A Woman's Freak.

The Cincinnati Times is responsible for the following story illustrating the fickleness of woman. The affair happened in that city last week:

"A very respectable gentleman from Chillicothe, accompanied by his wife and niece, the latter a very prepossessing young lady, arrived in the city and got accommodations at the Herdic House. Attending the young lady was her affianced, a worthy young man of Chillicothe, to whom she had been engaged for three years past, expecting soon to be married. Their three years of courtship had only appeared to strengthen the mutual admiration and love which seized them both upon the occasion of their first meeting.

"Everything seemed to point toward a speedy and glad union—in fact, we believe the journey to the city was par-

THE TELEGRAPHER.

tially for the purpose of obtaining certain necessary articles to complete a bride's outfit. The young man was of steady, industrious habits, in a good business, and uncle and aunt looked forward to his marriage with their niece with pleasant anticipations regarding their future. In the afternoon this pleasant and quite harmonious little family party had a caller at the Henrie House, in the person of another young man, an old acquaintance of the young lady, and a former resident of Chillicothe, but now a telegraph operator at a town not far away from there. This young man, as we are informed, was under an engagement of marriage with the young lady some years ago, but the engagement had been broken off. He was on perfectly friendly terms, however, with all parties. He said he was about to be married, and he asked the uncle and aunt if they would permit their niece to accompany him to a milliner's on Fourth street for the purpose of selecting a bonnet for his intended; and the request was readily granted. They had not been gone very long when she returned, and afterwards sat down to tea with her friends as though nothing had happened; but there had though.

"After tea the telegraph operator came to the office of the Henrie House and demanded his wife's baggage with a considerable display of importance. Explanations ensued, and it transpired that while the young lady was out to select a bonnet for the telegraph operator's intended, they concluded that the bonnet would fit her as well as anybody, and so they got married. When the story was told them and the marriage certificate shown, there was an uncle and aunt quite petrified with astonishment. There was a young man from Chillicothe, however, who was not so much petrified, for when he came back and learned what had transpired, he took his pistol and expressed a strong desire to shoot some one.

"He would probably have reduced the corps of telegraph operators by about one if he could have found the instrument—we might call it the telegraph instrument—of his ruin. But he had gone, together with the perfidious woman to whom he had hoped to be united."

Correspondence.

SPRINGFIELD, Mass., Nov. 17, 1866.

TO THE EDITOR OF THE TELEGRAPHER:

It is scarcely to be expected, in this fast age, that we should find a standard or limit to improvements. The natural Yankee law of go-ahead-itiveness will ever maintain its sway, and it would be as futile to arrest its course, as to attempt to check the incoming and retreating ebb of the ocean.

In telegraphy, as in all other arts, there will ever be found men who, from experience and practical acquaintance with its workings, will discover some new devices, some necessary alterations or modified forms whereby the interests of the art, as well as their own, may be advanced. It is as fair to presume that many aspiring "promoters of the art" will also enter the field, not with a show of modest worth, but scorning the prestige of science and the demonstrated results of experience, with a flourish of trumpets to herald their coming, and blatant titles to attract a certain amount of languid notoriety, will seek to accomplish similar objects. To the latter class may be ranked the organization known as the so-called "New-York and New-England Champion Telegraph Club;" and as it is assuming a certain prominence which might imply a concurrence in and support of old and thorough practical telegraphers, and as its influences are so unmistakably pernicious, we propose to throw down the gauntlet and ventilate the matter.

It is not a little refreshing in this fast age, or age of steam, when quasi improvements are foisted into notice as genuine and useful ones, to read the calm comments and sound statements of "Cyclops," in his Bangor letter in the first of November issue of THE TELEGRAPHER.

They have the ring of sound practical experience and matured judgment, and commend themselves favorably to the attention of those interested in "Champion telegraphic feats" of "sending."

The organization having for its avowed object "the improvement (?) of the art of sending," cannot fail of impressing any telegrapher of its local character and unmistakable tendencies. It has but few if any merits, and has positively many disadvantageous features. An object which seeks to transmit a given number of words in the shortest space of time, regardless of the capabilities of the receiving operator, extent of circuit, and condition of the wires, is no improvement, nor bears the shadow of reality to one, and carries on its face its own judgment and criticism of its promoters.

When telegraph companies will take into consideration more desirable qualities than that of "sending" in the employment of operators, lesser inconveniences and annoyances to themselves and the public will result from "bulled" messages, or "improved sending." Any telegraph college student may, with a little dexterity of the fingers, after a month or two of careful practice, rush thirty-five or forty words a minute over a line, and yet not be able to distinguish an "office call" by sound, however slowly it may be written.

It is not in the least flattering to the profession to observe, in some large offices, copies of press reports; they are translated and written in such a bungling, guess-work manner that it is no marvel that errors are quite frequent in some newspaper press reports, and that unenviable benedictions on the operators are oftentimes bestowed by printer's devils, who endeavor to decipher in readable English the unorthographical hieroglyphics; and still many of those receiving operators, through a conceited vanity, would not "break" for an hour, though some doubtful letters or words should glide along, but with a self-complacent air of satisfaction mentally exclaim as he hurriedly answers "O. K.": "Ah! what if I have missed a few words! I wouldn't please that fellow to 'break' and have him to repeat them. I guess I've 'stuck' him this time, even if he did rattle it at lightning speed;" and so hurriedly glances over the copy and trusts to a little tact and a fertile imagination for supplying doubtful words or letters; and even if there should remain a few uncorrected passages, why, let the proofreaders correct them.

When operators will think more of the interests of their employers and take into consideration many circumstances governing the transmission and correct translation of messages, instead of pandering to a schoolboy vanity in cultivating a "talent" beyond practical value of doubtful advantages, a more pleasant and prosperous era in telegraphing shall be introduced, which will redound with benefits, not to telegraph companies alone, but to themselves. Let us also, in this connection, at the risk of being considered ungenerous, state another palpable fact. It is the manifest indifference of too many good operators on our commercial lines to the knowledge of electricity and its direct application to telegraphy, and to the atmospheric conditions which affect the practical working of circuits. No telegrapher, with any claims to the dignity of his profession, can dispense with a knowledge so vital to success in the art. Let us aim to be something more than mere mechanical manipulators, and seek not the cultivation of a single "talent" while we ignore those of more practically useful value.

There are many leisure moments and hours which might be profitably spent in enriching our minds with valuable and interesting information relative to our profession. There should not be a single telegraphist on this continent without a copy of that valuable work, "Prescott's History, Theory, and Practice of Telegraphy," for reference and study in his leisure moments. We enhance our claims and title to the profession by this useful information of the circumstances governing our daily operations.

We cheerfully accord to the champion contestants and supporters of the so-called New-York and New-England Champion Telegraphic Club all the merits to which their possession of "a certain amount of talent which old fogies never dreamed of," may entitle them; but we dispute the utility of that eminent attainment, and deplore the countenance and active part taken in the organization by a few men of recognized abilities.

INCA.

NEW-YORK, Nov. 26th, 1866.

TO THE EDITOR OF THE TELEGRAPHER:

SIR:—Being one among the first who learned the art of telegraphy, and necessarily having had some experience in it, I take a great interest in everything connected with it.

Your paper gives so much information, and in such a pleasant manner, that I am about to trouble you on a little point about which, as yet, I have not been satisfactorily informed.

Who was the first person who read by sound? When and where? This I ask as a matter of information, as I have been several times told of different operators who laid claim to this feat.

Now what I am about to state is not to pretend that I am the first, but I will state facts, and would like either yourself or any of your correspondents to answer.

In 1846 there were two wires from Washington to Philadelphia. I had learned in 1845, on a line between Washington and Baltimore, then under Government patronage. One day in 1846, while sitting in the Baltimore office idle, the two wires being occupied by the operators at Washington transmitting to Philadelphia, a very singular coincidence occurred. The operators at Washington were sending Congressional and other news, of course independently of each other, when at the same instant, and in exactly the same time they each wrote the word "going." I heard them, and remarked at the time it was singular, but not improving on the fact that I could read by sound I never attempted business until 1849, when, having taken hold of the Bain system, I was in charge of the office at Philadelphia. One morning, there being no chemically-prepared paper ready for use I was compelled to keep business back until some was gotten. The operator at Baltimore had a very important message to overtake a certain train; called me, and so stated (we used the relay simply as a call). I informed him he must wait until the paper was ready, but as the necessary materials were not at hand to prepare, I told the operator to send his message; he did so, and from that time I did all the business by sound. The fact is recorded in the book of accounts of the Bain line at Philadelphia about November, 1849.

Will you or any operator please answer this, as I have for many years been gathering telegraphic items here and in foreign countries, and would like to add this to said collection?

Very respectfully,

B.

NEW-YORK, Nov. 27, 1866.

TO THE EDITOR OF THE TELEGRAPHER:

CAPT. S. BRUCH, of the United States Military Telegraph, Military Division, Miss., deceased at Memphis March 31, 1865, is buried at Canton, Stark County, Ohio, and over his remains the officers and employés of the corps have erected a monument. The following extract from a letter received by me, dated Nov. 15, I desire to present to the subscribers to the fund through your paper, having no other means of reaching them:

"For my husband, therefore, as well as for myself and family, do I thank you and those associated with you for the manner in which you have honored his memory. Men frequently express their sorrow for the loss of a friend and their sympathy for those who are bereaved in a few well-chosen and expressive words that are forgotten almost as soon as uttered. You have given expression to those feelings in a manner that perpetuates them and touches deeply the hearts of those whom you thus honor and place under lasting obligations to 'the officers

and employés of the United States Military Telegraph Corps, Department of the Mississippi.'

"As you were selected by Capt. Bruch's friends to procure the monument, I venture to hope that through you some expression of the gratitude which myself and family feel may reach those friends."

"MRS. KATE P. BRUCH."

I can add nothing to these simple, earnest words, and therefore quote them.

JOHN C. VAN DUZER,

Late Asst. Supt. U. S. M. Tel., Mil. Division, Tenn.

DISTRICT PROCEEDINGS.

MEADVILLE DISTRICT.—Regular meeting, Nov. 5.

Minutes of last meeting adopted.

The following named persons were proposed for membership: P. H. Cook, of Kent, O.; W. D. Armstrong, Ravenna, O.

Motion carried to suspend the rules and ballot for the candidates for membership. Both gentlemen unanimously elected members.

There being no further business, adjourned.

TRIBUTE OF MEMORY.

At a special meeting of the Meadville District, convened at the W. U. Telegraph Office, Saturday evening, Nov. 17, the following preamble and resolutions were unanimously adopted:

"Whereas, It has pleased the Almighty Ruler of the universe, in his infinite wisdom, to remove suddenly from our midst our beloved brother operator, E. D. Slate, who was stricken down in the morning of life, vigor of health, and usefulness of manhood, by fatal injuries inflicted while attempting to cross the railroad track at Boyd Farm, Pa., on Thursday evening, November 15; therefore

Resolved, That we recognize in this severe affliction and sudden bereavement the loss of a true and tried friend and brother operator, one who was never neglectful of the duties of his position, and who possessed all the higher attributes that were calculated to endear him to his fellow-operators and associates.

Resolved, That while we feel keenly the sudden loss of our brother we will ever emulate his social virtues and his purity of character. Though removed from the scenes of life, yet his name and memory will ever be fondly cherished, and will live in the hearts and affections of those with whom he was associated.

Resolved, That we hereby tender to his family and relatives our heartfelt condolence in this their great loss; that a copy of these resolutions be presented to them as a testimonial of our sympathy. While they have our deepest sympathy in their sad bereavement, yet we would command them to the infinite consolation of our all-wise and good heavenly Father, who alone can soothe the aching heart and stay the silent, heartfelt tear.

Resolved, That a copy of these resolutions be furnished to THE TELEGRAPHER and Meadville Republican for publication.

W. M. WOODRUFF,
JAS. PITTON,
H. CHAFFER, Committee.

LOUISVILLE DISTRICT.—Regular meeting, Nov. 5.

Minutes of last meeting accepted.

Treasurer reports on hand \$1 50 General and \$68 50 Local fund.

Office of Treasurer being vacant, Mr. John Swindell and Mr. Edward Marsh were nominated candidates.

Committee on election of Treasurer appointed—Messrs. Ellison, Peabody, and Cassill.

Committee to solicit subscriptions for THE TELEGRAPHER appointed—Messrs. Marsh, Eggleston, and Griffin.

After a few remarks by the Director, adjourned.

BALTIMORE DISTRICT.—Adjourned regular meeting, Nov. 24.

(There being no quorum present at the time of the regular meeting on account of the great excitement in the city, owing to the arrest of the newly-appointed Police Commissioners, the meeting adjourned till Saturday evening, Nov. 24.)

Minutes of the last meeting approved.

The Treasurer's quarterly report accepted.

The District then went into an election for Secretary in place of Mr. J. J. G. Riley, resigned.

Mr. James McCollan was unanimously elected to fill the vacancy, Mr. Yeakle, who was elected on the first ballot, having declined.

On motion of Mr. Yeakle, it was agreed that none of the proceedings of this District be made public except through the approval of the Director and his council.

This motion was made more particularly with a view to preventing the members of the District from making

undue publicity to matters that should be kept inside the District. Adjourned.

CALIFORNIA DISTRICT.—Regular meeting, Nov. 4. Minutes of previous meeting approved.

Meeting opened by remarks of Director Urquhart on the death of our brother, R. J. M. Franklin, formerly of Brighton, C. W., latterly from Aurora, Nevada, who died November 1, at Virginia City, Nevada.

District Treasurer's report accepted.

Mr. N. J. Siviers, of Sugar Loaf, proposed for admission. Referred to Committee on Qualifications.

An Executive Committee was appointed who will constitute Committee on Qualifications.

Mr. J. R. Yontz moved that the Director appoint a committee to ascertain the cost of placing a small marble slab over the grave of Mr. Franklin, with his name and date of death inscribed thereon, together with a telegraphic insignia to be chosen by the committee, and to be reported upon at next meeting, and if assented to voted from the Local fund. Carried.

Resignation of Mr. J. G. Bloomer, of Virginia, accepted. Adjourned.

Obituary.

A. H. CALDWELL died in New-Orleans at 8:20 A. M. on Sunday, Nov. 28th, of epilepsy, with congestion of the brain, after an illness of about forty-eight hours. He entered the United States Military Telegraph service in August, 1861, being then in charge of the office at General McClellan's, in Washington. He remained on duty as chief operator, headquarters Army of the Potomac, from that time until the close of the war, accompanying the army on every march and during every siege. On the 1st of September last he went to New-Orleans as cipher operator for General Sheridan, where he remained until his death. His remains were sent to Zanesville, Ohio, for interment.

WASHINGTON, D. C., Nov. 27, 1866.

A meeting of the telegraphers of the District of Columbia, called upon the receipt of the intelligence of the death of A. H. Caldwell, a military cipher operator at General Sheridan's headquarters, in New-Orleans, was held at the N. T. U. room on the evening of the 27th instant. The following resolutions were unanimously adopted:

"Whereas, In answer to the call of the all-wise Ruler of the universe, our late friend and brother, A. Harper Caldwell, has been summoned from active life on a distant circuit to the eternal home awaiting all; therefore, be it

"Resolved, That we, his late companions of the United States Military Telegraph and the social circle of telegraphers of the District of Columbia, have received this sad news with profound regret.

"Resolved, That in the death of A. Harper Caldwell we mourn the loss of a genial comrade in camp life and office labors, a warm friend and jovial companion in pastime hours, a hand at the key always ready and ever welcome; and that the community of telegraphers throughout the country have lost a worthy member of the profession.

"Resolved, That we tender to his sorrow-stricken brother and mourning friends our assurances of warmest sympathy in this dark hour of affliction; may they be consoled by a confiding trust in the wisdom of the great Giver of all good for a revelation to their own hearts of the lessons taught by this sudden bereavement.

"Resolved, That copies of these resolutions, signed by each person present, be forwarded to James Caldwell, Zanesville, Ohio, and to THE TELEGRAPHER for publication.

(Signed)

"Geo. C. MAYNARD, Chairman,
D. H. BATES, Secretary,
Wm. H. YOUNG,
Chas. A. TINKER,
R. W. BENDER,
J. F. HAHN,
H. H. BISHOP,
A. S. ADAMS,
C. H. GOEGEL,
D. L. FINDLEY,
Jno. E. O'BRIEN,
M. MORAN,
J. M. SARVAIS."

Telegrams of sympathy and condolence were received from Messrs. Emerick, Richmond; Nichols, Petersburg; Henderson, Newbern; Dealy and Bodell, Fortress Monroe, and Loucks and Holloway, Norfolk, which were also ordered to be forwarded to James Caldwell.

A CABLE dispatch in cipher was recently sent by Secretary Seward to Minister Bigelow at Paris which contained three thousand seven hundred and twenty-two words, and on which a tariff of nineteen thousand five hundred and forty dollars and fifty cents in gold was paid. The message was written entirely in figures, of which there were four thousand two hundred and nine. The time consumed in transmission from Washington to New-York was, including "repeating back" six hours, each figure having to be written in full and duplicated. Time for counting and checking about four hours, each letter being counted twice to insure correctness. To save time, a copy was taken by an extra operator at the sending instrument, from which the count was made. It was sent by "C." and copied by "J." "D. I." and received by "Q." "N. T." This item may be of interest to telegraphers generally, and it undoubtedly is to the lucky holders of cable stock.

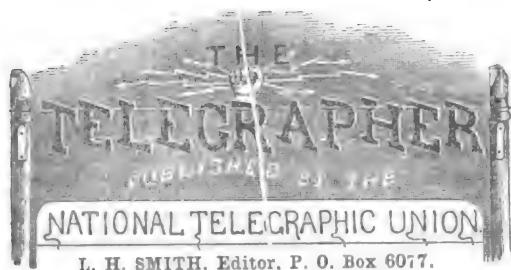
MORE COMPETITION NEEDED.—The Western Union Telegraph Company are playing a mean, contemptible game with the business men of Little Falls, which may some day react upon its authors in a manner they will appreciate. The facts in the case are these: Our town assessors assessed the company \$5000 on their property within the town limits. The company said nothing till the assessment was made, when they claimed that they paid tax at Rochester, *on all their property*, and were not liable here. Instead, however, of taking measures, as other parties do, to induce the town to refund the tax, the company *have made a special tariff for Little Falls*, compelling our business men to pay *ten cents extra* on every message sent from this office as a punishment upon the town for the action of the assessors. If ever any action of a corporation was more unjust, more contemptible, more tyrannical, we have failed to hear of it. Our citizens may well take pleasure in the prospect of an early competition in the telegraph business which will relieve us from this petty tyranny, even though legislation shall fail to interrupt it.—*Journal and Courier, Little Falls.*

The New-York Times says the Western Union Telegraph Company on Saturday last declared a dividend of 2 per cent., payable in January next. This, we presume, must be taken as the cause of the advance in the price of the shares to fifty, from forty-five, to which they fell on the strength of a report that the company would pass its dividend. If the officers of the company willfully permitted the report of no dividend to go abroad to favor interested parties in the purchase of the stock at a low price, and then immediately after declared a dividend, affording opportunity to the same parties to sell out at a high price, then the action was very reprehensible. There are good reasons against the officers of any company dealing in its own shares, and wherever the fact of such action is known, in a bank, a railroad or other company, it should insure a prompt change of the manager, or such of them as so offend.—*Ledger and Transcript Nov. 20.*

THE cards of invitation to the banquet of Cyrus W. Field are worthy of notice. Their size is six by seven inches. The engraving includes three pictures. The central one represents America and England, girdling the earth with telegraph cable. An olive-branch is held over the earth by a dove on the wing. Joining it is the seal of the Chamber of Commerce. On the left, below, is the American eagle, with shield, etc., and thirty-six stars; and on the right appears the coats-of-arms of Great Britain. The words of invitation are: "The Chamber of Commerce of the State of New-York respectfully invites — to meet Mr. Cyrus W. Field at dinner, on Thursday, the 15th inst., at 6 P. M., at the Metropolitan Hotel, to exchange congratulations on the happy result of his efforts in the great work of uniting by telegraph the Old World with the New. A. A. Low, George Opdyke, William E. Dodge, Jonathan Sturges, Stewart Brown, Samuel B. Ruggles, Committee. New York, Nov. 5, 1866."

Telegraph wires leading from the banquet hall were attached to the wires connecting with the Atlantic cable. Dispatches were sent to Europe during the banquet. Preparations were made for about three hundred persons.

THE TELEGRAPHER.



L. H. SMITH, Editor, P. O. Box 6077.

SATURDAY, DEC. 15, 1866.

GOVERNMENT TELEGRAPHS.

If any confirmation were needed of the justice of our remarks a few weeks since upon the subject of Government telegraphs, it can be found by reference to a book recently published in England, entitled "The Story of the Telegraph in India," by Charles C. Adley, C. E. We cannot resist the temptation of making a few extracts from this work for the amusement and perchance the instruction of the craft in America. The story of the Indian telegraph system as related in the works of Shaffner, Prescott, and others is familiar to us; the perfect construction and admirable working of the lines is enlarged upon and held up as a model worthy of the imitation of the profession throughout the world. But if we can believe Mr. Adley, who is apparently well posted in the matter, the true aspect of affairs is slightly different from what we have supposed.

The Indian lines were run up with extraordinary rapidity, bamboos or similar cheap supports being used, merely having grooves cut at the top for the wire to rest in. While the materials were being made in England, orders were issued to every magistrate of each district to have poles of this kind set up before a certain date. On commencing to run out the wire in November, 1854, the poles were already everywhere erected. All the resources of the Government were then brought into play, and a telegraphic system, such as it is, was almost instantaneously erected, to the astonishment of the world.

As regards the instruments, it appears that from 1851 to 1853 a small single needle telegraph was in universal use in India, but the complaints of the public at last led to the introduction in 1858 of the American Morse instrument.

Some mistakes appear to have been made in the matter of insulation, as witness the following: "The theory propounded and maintained in various Government records was that in long single lines of telegraph insulators could be dispensed with." Notwithstanding, it appears that when the repeating office at Bagoda was closed during the mutinies, fruitless efforts were made both from Raneeunge and Calcutta to work direct with Benares. The signals passed were too weak for any practical purpose. In the official report for 1860, in spite of this and much more experience to the contrary, the remarkable theory is set forth that, even on lines of several wires, insulation can be dispensed with, because "distilled water, which rain is chemically, is, in fact, a capital insulator of voltaic currents."

In 1862, however, the Director General of Telegraphs, in his letter to the Indian Secretary, confessed that "the Indian lines offered the only example in the world of telegraphic wires entirely without insulation" (except, probably, that afforded by "distilled water"). During the rains the largest battery that can be employed frequently fails to produce indications on the magnet of the next station.

According to Mr. Adley, the Government, after no less than five successive experiments on a large scale, with a number of different insulators, on as many different principles, is at last trying another and a sixth pattern. The previous kind, which consisted of a cast-iron cap, fitted with an insulating block of gutta-percha, through the

center of which passed a spike for fastening the insulator to the post, was tried to the number of one hundred and eight thousand, and proved a total failure! The Government electrician also at one time was actually possessed with the notion that it was "objectionable to work two wires on the same post, because cobwebs forming on the wires, and connecting them together, would cause an interruption." And a line on which two wires had been fixed was accordingly closed by a Government fiat.

As is not uncommon with ill-paying concerns, the employees are very badly paid, with the inevitable result of an inefficient staff. A short time ago some improvements were made in the pay and privileges of the officials, but even now the telegraph department offers no career worthy of acceptance by a European of the least education or ability. Another result of this wretched policy is shown by the fact that the operators, when off duty, were in the habit of lounging about the offices within hearing of the instruments, although not admitted into the enclosure. This gave them an opportunity of copying important dispatches relative to the cotton market, and selling them to the enterprising native merchants, who were enabled to act on the information an hour or two before the message reached its legitimate addressee. It appears that the operators made rather more money while they were off duty than when on, and between the two it is to be hoped were enabled to keep out of the alms-house.

But the most significant commentary upon the Government theory of insulation comes out in their official circular, which advises all habitual correspondents, especially on the Calcutta and Bombay line, to use it "*as little as possible during the rains!*" It has also been found necessary to establish a general complaint office at Calcutta, with a well-paid official at its head.

These facts have naturally provoked a comparison between the Government and the railway lines. It appears that in October, 1861, for instance, a Government line was in working order for only eight days out of the thirty, and interrupted twenty-two, "which, according to subsequent returns, appeared to be about the average of interruptions all over India. The railway telegraph running side by side with this very line was in perfect working order, transmitting five hundred messages daily." It may be noted that since August, 1862, the railway telegraphs, in spite of much official opposition, have been thrown open to the public.

Much more might be cited to the same effect, but the above is a fair sample of what might be expected if our telegraph lines were made a Government monopoly and run on the same principles of political favoritism that prevail in some other departments. The startling and original discoveries in electrical science which would, doubtless, be made, would, we fear, hardly compensate for its resultant disadvantages. *

TELEGRAPHIC MISCELLANEA.

For reasons not necessary now to explain, a transposition of letters occurred in Fig. 3 of the diagram of the cable instrument given in our last. Our readers, doubtless, observed the error, but for fear some may not have done so, we make mention of the fact.

Owing to unforeseen circumstances, we are unable to present our readers in this issue a diagram of the Receiving Apparatus of the cable, as in our last we promised, but shall do so in our next.

NORVELL, of Cambridge, Ohio, is respectfully informed that his letter has been mislaid. Hence the delay of this notice.

The Local District was properly formed so far as Mr. Kirby could form it. The officers of the Pittsburg District failed in their duty. Mr. K. could not issue the certificates of membership. These can only be issued by the District Director. The better way to settle the differences will be to refer the matter to the Executive Committee of the Union.

We have neglected, owing to the mislaying of some of our papers, to return thanks for a box of wedding cake and the cards of Mr. and Mrs. George C. Wood, of Fort Plain, N. Y.

We were highly gratified with the friendly sentiments expressed in the accompanying note. Happiness be with you always.

A FREDERICK (Md.) paper, speaking of the "new postmaster" in that place, says:

"Mr. Kelty, the late incumbent, has performed the duties of the office with an ability and with a spirit of accommodation which are universally conceded by men of all parties. It affords us pleasure, also, to state that Messrs. Browning and Creager, clerks in the office, who retire with their principal, have been at all times attentive, obliging, and efficient, and we freely accord them this public expression of our approval of their official conduct and deportment."

Mr. Kelty is now of the firm of Tabler & Kelty, 82 West Patrick street, dealers in all kinds of family groceries.

THE International Ocean Telegraph Company expect to be in communication with Havana, Cuba, by the middle of March next.

PROFESSOR HENRY, of the Smithsonian Institute, delivered a very interesting lecture on Magnetism before the members of the Washington District of the National Telegraphic Union, at the Colonization Building, last month.

The professor illustrated his lecture by a number of pleasing and instructive experiments with the magnet. He contemplates establishing, at an early day, with the kind co-operation of the different telegraph companies, the system of weather reports from all the principal cities in the United States.

The professor, it is expected, will repeat a number of interesting and instructive lectures during the winter before this association.

LIGHTNING.—A distinguished scientific writer and practical philosopher says that persons struck by lightning should not be given up as dead for at least three hours. During the first two hours they should be drenched freely with cold water, and if this fails to produce restoration, then add salt, and continue the drenching for another hour.

GENERAL MELGAREJO is daily consolidating the institutions in Bolivia, working with the utmost perseverance in the reformation of the country, and affording new and strong proofs of his decision in favor of the American cause. The Bolivian Government, stimulated by the Government of Peru, is studying and perhaps will soon solve the question about the telegraphic line which will place the allied republics in closer communication.

LIST OF WAY "OFFICES" IN MERCHANTS' NATIONAL TELEGRAPH LINE.—From Oil City to Pittsburg, Pa.; Franklin, Venango Co., Pa.; Emileton, Clarion Co., Pa.; Parker's Landing, Armstrong Co., Pa.; Brady's Bend, Armstrong Co., Pa.; Mahoning, Orlville P. O., Pa.; Kittanning, Armstrong Co., Pa.; Fresph, Armstrong Co., Pa.

CHANGES, ETC.—Frank H. Evans, late of the W. U. Drummondtown, Va., Office, is now with the same company in the Washington, D. C., post-office.

We learn that Fowler Bradnack, a well-known operator, for many years employed in both the New-York and Buffalo offices, has resigned his position with the W. U. Telegraph Company, and accepted that of local editor on *The Buffalo Commercial Advertiser*.

Noah Trissell resigned his position, Aug. 24, as Manager of W. U. and I. M. Co.'s Lindell Hotel, St. Louis, Office, to accept position as Chief Receiver of same Co.'s Main Office, at same place. W. H. Davy, of Mansfield, Ohio, succeeds him at "Ho."

On the morning of October 29 three brokers, representing three several interests in the "bull and bear" market, got into a dispute about some stocks, when the larger one of the three gentlemen proposed to whip the other two according to the rules of the P. R. The proposal did not meet the assent of his opponents, and so he sailed into them *nolens volens*, knocking one of them out of time at a single blow. In attacking his second man he met more than his match, for the belligerent broker was knocked into the gutter. The affair at this juncture drew a large crowd of people to the spot, and among them numerous friends of the combatants. One of the party lost his diamond breast-pin in the affair, and offered \$500 reward for its recovery. A messenger-boy of the B. & B. Co. found the precious jewel, and received the welcome reward.

THE BOSTON DRAMATIC ASSOCIATION gave a very enjoyable entertainment at 554 Washington street one evening in October last. This Association is composed of telegraphers, and E. F. Leighton, of the Insulated Lines, is stage manager for the present season. He performed his duties with energy at the initial performance, and also made a creditable appearance as "Sergeant Austerlitz," in the "Maid of Croissey."

Mr. J. W. Stover as "Sir Charles Howard," in "The Little Treasure," acted the part with praiseworthy appreciation of its requirements. The ladies of the company did well, and Miss Harris as "Gertrude" deserves high commendation for her spirited personation.—*Boston Paper.*

[The above notices have been ruled out twice by the incorrigible printer.]

We hope we do not violate confidence in stating a fact to the honor of a New-York merchant, which, though a private transaction, ought to be known. Our fellow-citizen, Mr. Cyrus W. Field, whose name will always be connected with the Atlantic telegraph, has twice nearly ruined himself by his devotion to that enterprise. Though a man of independent fortune when he began, he embarked in it so large a portion of his capital as nearly to make shipwreck of the whole. While in England, engaged in the expedition of 1857, a financial storm swept over this country, and his house suspended; but on his return he asked only for time, and paid all in full with interest. But the stoppage was a heavy blow, and being followed by a fire in 1859, which burned his store to the ground, and by the panic of December, 1860, just before the breaking out of the war, he was finally obliged to compromise with his creditors. Thus released, he devoted himself to the work of his life, which he has at last carried through. The success of the Atlantic telegraph, we are happy to learn, has brought back a portion of his lost wealth, and his first care has been to make good all losses to others. He has addressed a letter to every creditor who suffered by the failure of his house in 1860, requesting him to send a statement of the amount compromised, adding the interest for nearly six years, and as fast as presented returns a check in full. The whole amount will be about \$200,000. Such a fact, however he may wish to keep it secret, ought to be known to his honor, and to the honor of the merchants of New-York.—*Post.*

FROM SAN FRANCISCO, Nov. 10.—The steamer Constitution sailed for New-York. Among her passengers is G. H. Mumford, of the Western Union Telegraph Company

A TELEGRAM has been received to the effect that Mr. Cyrus W. Field will shortly sail for England with authority to order a cable to be laid from Placentia to such point (Halifax or Boston) as might be deemed best.

THE Montreal Telegraph Company have opened offices at Durham Flats, Granby, Farnham, Waterloo, Magog, Georgeville, Knowlton, Mansville, Abercorn, Sweetsburg, and Frelingsburg in the Eastern Township, Canada East.

Cards from the Associated Press.

To all Agents and Correspondents of the Associated Press:

OFFICE OF THE ASSOCIATED PRESS, {
NEW-YORK, Nov. 7, 1866. }

MR. D. H. CRAIG, the former Agent of the Associated Press, having stated in a card that he had not been discharged from such agency, and that he was responsible only to the Executive Committee, it becomes proper for us to state that he was employed by and responsible to the Association and not the Executive Committee, and that he was discharged by the vote of the Association.

SAMUEL SINCLAIR, *New-York Tribune*,
MANTON MARBLE, *The World*,
Executive Committee.

OFFICE OF THE NEW-YORK ASSOCIATED PRESS, {
NEW-YORK, Nov. 10, 1866. }

To the Newspaper Press of the United States:

The Associated Press of New-York beg leave to assure the Press of the country that the change of the New-York Agent will prove beneficial to the entire newspaper press. We have no interest not in harmony with the press outside of New-York, our only desire being a union of newspaper interests, which should be identical all over the entire country. We can assure the entire press of the country that the quality of the Association's news shall be improved, and the expenses kept within proper limits. Let the press be a unit in this business, and all will be well.

SAMUEL SINCLAIR, *New York Tribune*.
GEORGE JONES, *New-York Times*.
J. G. BENNETT, *New-York Herald*.
W. C. PRIME, *Journal of Commerce*.
J. & G. BROOKS, *New-York Express*.
M. S. BEACH, *New-York Sun*.

A Straw.

WANATAH, Nov. 18th, 1866.

T. S. BEELER, SUPERINTENDENT TELEGRAPH:

Much Respected Sir:—Since I have had access to THE TELEGRAPHER, which I subscribed for through your influence, I have become very much taken up with it. The knowledge and benefit I derive from the reading of it I would not wish to exchange for twice the cost of the little sheet; and I have further become impressed with the idea that the National Telegraphic Union is a great and good institution, and I should love to become a member of it. How long does a person have to be a telegrapher, and how proficient in the art before he can be admitted, believing it to be good when worthy? I should love to gain access. Please give me some information concerning it.

Yours very respectfully, J. T. SAUNDERS.

SALES of stock Dec. 12—W. U., 49¢; Insulated, 12; B. & B., 97¢.

BEFORE JUDGE SMALLEY, NOV. 15TH.

Saml. F. B. Morse *et al agt.* The California State Telegraph Co.

This was a motion made by Mr. J. S. Carpenter, counsel for defendant, to have a summons served by Mr. Charles Tracy on the President of defendant's company, quashed, on the ground that an officer of a foreign corporation could not be summoned outside of the territory in which the company's corporate powers are exercised.

Judge Smalley rendered the following decision: On reading and filing affidavits, etc., and of notice of motion, and after hearing Mr. J. S. Carpenter as counsel for defendant in behalf of said motion, and Mr. Charles Tracy as counsel for plaintiff, in opposition thereto; and the Court having duly considered the same, now, on motion of said J. S. Carpenter, it is ordered that the writ, or summons, issued herein, be and the same is hereby quashed and set aside, and that this action be and is hereby dismissed, with cost to defendant.

W. U. TELEGRAPH CO., {
OFFICE SUPT. MET. DIST.,
NEW-YORK, December 1, 1866. }

To all Managers Metropolitan District:

A. S. Brown, Assistant Manager of the Operating Department and New York Office, is hereby appointed Manager, *vise* H. H. Ward, resigned.

J. C. HINOHMAN, Superintendent.

LOUISVILLE, NEW-ALBANY AND CHICAGO R. R. }
SUPERINTENDENT'S OFFICE,
NEW ALBANY, IND., OCT. 18th, 1866. }

SPECIAL ORDER.

To all Agents, Operators, Conductors, and Engineers:

On and after the 20th inst., until further notice, all special orders for the movement of trains will be issued by T. S. Beeler at Greencastle.

Any orders addressed by him to operators or others connected with the Telegraph Department must be respected.

B. F. MASTEN, Superintendent.

One night last month, which was one of peculiar atmospheric conditions, there was uninterrupted telegraphic communication between Sydney, Cape Breton, and New-Orleans, through Nova Scotia and New-Brunswick, and the various States of the Union. The following dispatches were sent:

Sydney to New-Orleans—“Your connection good. Glad to hear from sunny New-Orleans. It is snowing hard here.”

New-Orleans to Sydney—“It is quite sultry to-night. We are fighting mosquitoes. Your connection was good via Mobile.”

A LATE dispatch from Great Salt Lake to the Directors of the Western Union Telegraph Company says:

“The line is again interrupted by Indians. Eighteen miles east of Julesburg one hundred head of mules and as many head of cattle were run off, one man killed and two wounded. A detachment of cavalry pursued the Indians and recaptured half the stock. Some Indians were killed and several wigwams captured.”

The last match at sending took place in Worcester, on Tuesday, Nov. 27, for the “Golden Key,” between Mr. P. H. Burns, of that city, the present holder, and Mr. Wm. E. Keittles, of Fall River, resulting in favor of Mr. Burns. The following gentlemen acted as judges: Mr. T. A. Duvin, Boston; Mr. J. M. Fairchild, New-Haven; and Mr. Gallup, of New-York.

THE Western Union Telegraph Company bark Clara Bell, from Ochotsk Sea, arrived at San Francisco, Oct. 23d, and reports the arrival of Col. Bulkley, Engineer-in-Chief of the Russian American Telegraph Expedition, and party at Petropaulowski about the end of July, all well.

THE Russian steamer Sagalou, arrived at Ochotsk September 10, with ten thousand roubles for the use of the Western Union Telegraph Company. Capt. Manhood, Mr. Robinson and party are well.

PATENT CLAIMS—59,763.—LINE WIRE FOR TELEGRAPH.—M. G. Farmer, Salem, Mass., and G. F. Milliken, Boston, Mass.:

We claim, in combination with the instruments, making up with the conducting wire a telegraph circuit, a copper wire conductor strengthened with iron or steel, substantially as set forth.

59,803.—ELECTRO-MAGNETIC CAR BRAKE.—Francois Ferdinand Auguste Arachard, Paris, France:

I claim, 1st. The eccentric, B, and lever, C, in combination with the magnetic cylinder, N, flanged drums, O, and brakes, 5, all constructed and operating substantially as and for the purpose described.

2d. The sliding armatures, 1, and hand-lever, 6, in combination with the electro-magnet, K, lever, C, and eccentric, B, constructed and operating substantially as and for the purpose set forth.

MARRIED.

In Chicago, November 29, at the residence of the bride's father, No. 126 West Jackson street, by Rev. C. H. Fowler, Mary II., daughter of M. N. Fuller, Esq., to Maynard A. Huyck, all of that city. No cards.

At Marshall, Texas, Oct. 16th, 1866, Mr. W. A. Wherry, of Nashville, Tenn., to Miss Fannie Barret, of Marshall, Texas.

DIED.

At Virginia City, Nev., of typhoid fever, after illness of fourteen days, R. J. M. Franklin, formerly of Brighton, C. W., laterly of Aurora, Nev. Canada papers please copy.

November 20, at Davenport, Iowa, of heart disease, Mrs. H. H. Matlock, wife of H. H. Matlock, Manager of Davenport, Ia., offices.

THE ATLANTIC CABLE.

BY JOHN R. RIDGE, OF THE CHEROKEE NATION.

LET Earth be glad! for that great work is done
Which makes, at last, the Old and New World one!
Let all mankind rejoice! for time nor space
Shall check the progress of the human race!
Though Nature heaved the Continents apart,
She cast in one great mold the human heart;
She framed on one great plan the human mind,
And gave man speech to link him to his kind;
So that, though plains and mountains intervene,
Or oceans, broad and stormy, roll between,
If there but be a courier for the thought—
Swift-winged or slow—the lands and seas are naught,
And man is nearer to his brother brought.

First, ere the dawn of letters was, or burst
The light of science on the world, men, nurst
In distant solitudes apart, did send
Their skin-clad heralds forth, to thread the woods,
Scale mountain peaks, or swim the sudden floods,
And bear their messages of peace or war.
Next, beasts were tamed to drag the rolling car,
Or speed the mounted rider on his track;
And then came, too, the vessels oar-propelled,—
Which fled the ocean, as the clouds grew black,
And safe near shore their prudent courses held,
Next came the winged ship, which brave and free,
Did skim the bosom of the bounding sea,
And dared the storms and darkness in their flight—
Yet drifted far before the winds and night,
Or lay within the dead Calm's grasp of might.
Then, sea-divided Nations nearer came,
Stood face to face, spoke each the other's name,
In friendship grew, and learned the truth sublime,
That Man is Man in every age and clime!
They nearer were by months and years. But space
Must still be shortened in Improvement's race,
And STEAM came next to wake the world from sleep,
And launched her black-plumed warriors of the deep,
The which, in calm or storm, rode onward still
And braved the raging elements at will.
Then distance, which, from calm' and s'orne' delays,
Grew into month-, was shortened into days,
And Scieuce' self declared her wildest dream
Reached not yet; and this miracle of steam!
But STEAM hath not the lightning's wondrous power,
Though, Titan-like, mid science' sons it tower,
And wrestle with the Ocean in its wrath,
And sweep the wild waves foaming from its path.
A mightier m-march is that subtler thing
Which gives to human thought a thought-swift wing;
Which speaks in thunder like a God,
Or humbly stoops to kiss the lifted rod;
Ascends to Night's dim, solitary throne,
And clothes it with a splendor not its own—
A ghastly grandeur and a ghostly sheen,
Through which the pale stars tremble as they're seen;
Descends to fire the far horizon's rim,
And paints Mount Etna in the cloudland grim;
Or, proud to own fair Science' rightful sway,
Low bends along th' electric wire to play,
And, helping out the ever wondrous plan,
Becomes, in sooth, an errand-boy for MAN!

This Power it was, which, not content with aught
As yet achieved by human will or thought,
Despised the slow account of months or days,
In navigation of the ocean ways,
And days would shorten into hours, and these
To minutes, in the face of sounding seas.
If Thought might not be borne upon the foam
Of surrowing keel, with speed that Thought should roam,
It then should walk, like light, the Ocean's bed,
And laugh to scorn the winds and waves o'erhead!
Beneath the reach of storm or wreck, down where
The skeletons of men and navies are,
Its silent steps should be; while o'er its path
The monsters of the deep, in sport or wrath,
The w'rs lashed, till like a pot should boil!
The sea, and fierce Arion seize the upcast spoil.

America! to thee belongs the praise
Of this great, crowning deed of modern days.
'Twas FRANKLIN called the wonder from on high;
'Twas MORSE who bade it on Man's err'nd fly—
'Twas he foretold its pathway 'neath the sea:
A daring FIELD fulfilled the prophecy!

'Twas fitting, that a great, free land, like this,
Should give the Lightning's voice to Liberty,
Should wing the heralds of Earth's happiness,
And sing, beneath the ever-sounding sea,
The fair, the bright millennial days to be.

Now may, ere long, the sword be sheathed, to rust,
The helmet laid in undistinguished dust;
The thund'rous chariot pause in mid career,
Its crimsoned wheels no more through blood to steer;
The red-hoofed steed from fields of death be led,
Or turned to pasture where the armies bled:
For Nation unto Nation soon shall be
Tog-ther brought in knitted unity,
And man be bound to man by that strong chain,
Which, linking land to land, and main to main,
Shall vibrate t' the voice of PEACE, and be
A throbbing heart-string of HUMANITY!

The Sunday Herald.

BARK Onward arrived at San Francisco on the 12th ult., and reports having left at Petropaulowski fifteen operators and constructors in the service of the Russo-American telegraph expedition. Ice had commenced forming when the Onward left, but the men were comfortably housed for the winter. The people of Petropaulowski treat the party with great hospitality. Col. Bulkley started for Anadyr Bay, August 2d, and is expected here during the present month. The Russian war steamer Variag left the same day for Nicolaefski, carrying Count Anasoff, the Russian Commissioner.

BANQUET TO CYRUS W. FIELD.

REMARKS BY MR. FIELD.

(Concluded.)

AFTER the failure of 1858 came our darkest days. In England the project was still kept alive. The Atlantic Telegraph Company kept up its organization. Half a dozen gentlemen joined together and bought the Great Eastern, to lay the cable, and at the head of this company was placed Mr. Daniel Gooch, a member of Parliament, and Chairman of the Great Western Railway.

Thus organized, the work of making a new Atlantic cable was begun. The core was prepared with infinite care, under the able superintendence of Mr. Chatterton and Mr. Willoughby Smith, and the whole was completed in about eight months.

For a week all went well; we had paid out 1200 miles of cable, and had only 600 miles further to go, when hauling in the cable, to remedy the fault, it parted and went to the bottom. That day I never can forget—how men paced the deck in despair, looking out on the broad sea that had swallowed up their hopes; and then how the brave Canning for nine days and nights dragged the bottom of the ocean for our lost treasure, and though he grappled it three times, failed to bring it to the surface. The story of that expedition, as written by Dr. Russell, who was on board the Great Eastern, is one of the most marvelous chapters in the whole history of modern enterprise.

In December I went back again, when lo! all our hopes had sunk to nothing. The Attorney General of England had given his written opinion that we had no legal right, without a special act of Parliament (which could not be obtained under a year), to issue the new 12 per cent shares, on which we relied to raise our capital. This was a terrible blow. The works were at once stopped, and the money which had been paid in returned to the subscribers. Such was the state of things only ten months ago. I reached London on the 24th of December, and the next day was not a "merry Christmas" to me. But it was an inexpressible comfort to have the counsel of such men as Sir Daniel Gooch and Sir Richard A. Glass, and to hear stout-hearted Mr. Brassey tell us to go ahead, and, if need were, he would put down £80,000 more! It was finally concluded that the best course was to organize a new company, which should assume the work; and so originated the Anglo-American Telegraph Company. It was formed by ten gentlemen who met around a table in London, and put down £10,000 apiece. The great Telegraph Construction and Maintenance Company—undaunted by the failure of last year—answered us with a subscription of £100,000. Soon after the books were opened to the public, through the eminent banking-house of J. S. Morgan & Co., and in fourteen days we had raised the whole £600,000. Then the work began again, and went on with speed. It was only the first day of March that the new company was formed, and was registered as a company the next day; and yet such was the vigor and dispatch, that in five months from that day the cable had been manufactured, shipped on the Great Eastern, stretched across the Atlantic, and was sending messages, literally swift as lightning, from continent to continent.

It was the worst weather I ever knew at that season of the year. We had fogs and storms almost the whole way. Our success was the result of the highest science combined with practical experience. Everything was perfectly organized to the minutest detail. We had on board an admirable staff of officers, such men as Halpin and Beckwith; and engineers long used to this business, such as Canning, and Clifford, and Temple—the first of whom has been knighted for his part in this great achievement; and electricians such as Prof. Thomson, of Glasgow, and Willoughby Smith, and Laws; while Mr. C. F. Varley, our companion of the year before, who stands among the first in knowledge and practical skill, remained with Sir Richard Glass at Valentia, to keep watch at that

end of the line, and Mr. Latimer Clark, who was to test the cable when done.

After landing the cable safely at Newfoundland we had another task—to return to mid-ocean and recover that lost in the expedition of last year. This achievement has perhaps excited more surprise than the other. Well, it does seem rather difficult to fish for a jewel at the bottom of the ocean two and a half miles deep. But it is not so very difficult—when you know how. You may be sure we did not go a fishing at random, nor was our success mere "luck." It was the triumph of the highest nautical and engineering skill. We had four ships, and on board of them some of the best seamen in England, men who knew the ocean as a hunter knows every trail in the forest. There was Captain Moriarty, who was in the Agamemnon in 1857-8. He was in the Great Eastern last year, and saw the cable when it broke; and he and Captain Anderson at once took their observations so exact that they could go right to the spot. After finding it, they marked the line of the cable by a row of buoys; for fogs would come down, and shut out sun and stars, so that no man could take an observation. These buoys were anchored a few miles apart. They were numbered, and each had a flagstaff on it, so that it could be seen by day; and a lantern by night. Thus, having taken our bearings, we stood off three or four miles, so as to come broadside on, and then casting over the grapnel, drifted slowly down upon it, dragging the bottom of the ocean as we went. At first it was a little awkward to fish in such deep water, but our men got used to it, and soon could cast a grapnel almost as straight as an old whaler throws a harpoon. Our fishing line was of formidable size. It was made of rope, twisted with wires of steel, so as to bear a strain of thirty tons. It took about two hours for the grapnel to reach bottom, but we could tell when it struck. I often went to the bow and sat on the rope, and could feel by the quiver that the grapnel was dragging on the bottom two miles under us. Once, on the 17th of August, we got the cable up and had it in full sight for five minutes, a long, slimy monster, fresh from the ooze of the ocean's bed, but our men began to cheer so wildly that it seemed to be frightened and suddenly broke away and went down into the sea. This accident kept us at work two weeks longer, but finally, on the last night of August, we caught it. We had cast the grapnel thirty times. It was a little before midnight on Friday night that we hooked the cable, and it was a little after midnight Sunday morning when we got it on board. What was the anxiety of those twenty six hours! The strain on every man's life was like the strain on the cable itself. When finally it appeared, it was midnight; the lights of the ship, and in the boats around our bows, as they flashed in the faces of the men, showed them eagerly watching for the cable to appear on the water. At length it was brought to the surface. All who were allowed to approach crowded forward to see it. Yet not a word was spoken; only the voices of the officers in command were heard giving orders. All felt as if life and death hung on the issue. It was only when it was brought over the bow and on the deck that men dared to breathe. Even then they hardly believed their eyes. Some crept toward it to feel it, to be sure it was there. Then we carried it along to the electricians' room, to see if our long-sought-for treasure was alive or dead. A few minutes of suspense, and a flash told of the lightning current again set free. Then did the feeling long pent up burst forth. Some turned away their heads and wept. Others broke into cheers, and the cry ran from man to man, and was heard down in the engine-rooms, deck below deck, and from the boats on the water, and the other ships, while rockets lighted up the darkness of the sea. Then, with thankful hearts, we turned our faces again to the West. But soon the wind rose, and for thirty-six hours we were exposed to all the dangers of a storm on the Atlantic. Yet, in the very height and fury of the gale, as I sat in the electricians' room, a flash of light came up from the

deep, which, having crossed to Ireland, came back to me in mid-ocean, telling that those so dear to me, whom I had left on the banks of the Hudson, were well, and following us with their wishes and their prayers. This was like a whisper of God from the sea, bidding me keep heart and hope. The Great Eastern bore herself proudly through the storm, as if she knew that the vital cord which was to join two hemispheres hung at her stern; and so, on Saturday, the 7th of September, we brought our second cable safely to the shore.

To show how delicate are these wonderful cords, it is enough to state that they can be worked with the smallest battery power. When the first cable was laid in '58 electricians thought that to send a current two thousand miles it must be almost like a stroke of lightning. But God was not in the earthquake, but in the "still small voice." The other day Mr. Latimer Clark telegraphed from Ireland across the ocean and back again with a battery formed in a lady's thimble! And now Mr. Collett writes me from Heart's Content: "I have just sent my compliments to Dr. Gould, of Cambridge, who is at Valentia, with a battery composed of a gun cap, with a strip of zinc, excited by a drop of water, the simple bulk of a tear!" A telegraph that will do that we think nearly perfect. It has never failed for an hour or a minute.

On land the task was more slow. For three months we have had an army of men at work under our faithful and indefatigable Superintendent, Mr. M. A. Mackay, rebuilding the line, and now they report it nearly complete. On this we must rely for the next few months. But all winter long these men will be making their axes heard in the forests of Newfoundland, cutting thousands of poles, and as soon as the spring opens, will build an entirely new line along the same route. With this double line complete, with frequent station-houses, and faithful sentinels to watch it, we feel pretty secure. At Port Hood, in Nova Scotia, we connect with the Western Union Telegraph Company, which has engaged to keep as many lines as may be necessary for European business. This, we think, will guard against failures hereafter. But to make assurance doubly sure, we shall, in the spring, build still another line by a separate route, crossing over from Heart's Content to Placentia, which is only about one hundred miles along a good road, where it can easily be kept in order. From Placentia a submarine cable will be laid across the French island of St. Pierre, and thence to Sydney in Cape Breton, where again we strike a coach-road, and can maintain our lines without difficulty. Thus we shall have *three distinct lines*, with which it is hardly possible that there can be any delay. A message from London to New-York passes over four lines—from London to Valentia, from Valentia to Heart's Content, from there to Port Hood, and from Port Hood to New-York. It always takes a little time for an operator to read a message, and prepare to send it. For this allow five minutes at each station—that is enough, and I shall not be content till we have messages regularly from London in twenty minutes. One hour is ample (allowing ten minutes each side for a boy to carry a dispatch) for a message to go from Wall street to the Royal Exchange and get an answer back again. This is what we aim to do.

Let who will speak against England—words of censure must come from other lips than mine. I have received too much kindness from Englishmen to join in this language. I have eaten of their bread and drank of their cup, and I have received from them, in the darkest hours of this enterprise, words of cheer which I shall never forget; and if any words of mine can tend to peace and good-will, they shall not be wanting. I beg my countrymen to remember the ties of kindred. Blood is thicker than water. America, with all her greatness, has come out of the loins of England—and though there have been sometimes family quarrels—bitter as family quarrels are apt to be—still in our hearts there is a yearning for the old home, the land of our fathers; and he is an enemy of his country and of the human race who would stir up strife between two nations who are one in race, in language, and in religion. I close with this sentiment: ENGLAND AND AMERICA—CLASPING HANDS ACROSS THE SEA, MAY THIS FIRM GRASP BE A PLEDGE OF FRIENDSHIP TO ALL GENERATIONS.

PREAMBLE

TO THE

Constitution of the National Telegraphic Union.

We, Telegraphers, uniting ourselves for the purposes of mutual protection in adversity, upholding and elevating the character and standing of our profession, promoting and maintaining between ourselves and our employers just, equitable, and harmonious relations, and advancing the general interests of the fraternity; recognizing the principle that the interests of the employer and employee are identical, and firmly believing that a union among ourselves, established upon just principles, will result in manifold benefits, not only to us, but also to those who employ us, and be the means of enlarging and establishing, upon a better foundation, the peculiar business to which we look for our support, with the hope that our endeavors will merit the commendation of all good men, and draw down upon our undertaking the benign influence of our Creator, do hereby ordain and promulgate for our organization and future government, the following Constitution.

EXTRACTS

FROM THE CONSTITUTION AND BY-LAWS OF THE NATIONAL TELEGRAPHIC UNION.

ARTICLE II.

SECTION I.

3. No person shall be a delegate who shall not have attained the age of twenty-one years.

4. The number of delegates shall not exceed one for the first fifty members, and one extra delegate when the exact proportion shall be twenty-five members in excess; but each District comprising *not less than fifteen members* shall be entitled to one delegate.

5. At the regular meeting in July the District shall nominate candidates for District officers and delegates.

8. No member who is six (6) months in arrears for dues shall be entitled to vote, or be eligible to any office, and shall not be enumerated in the basis of representation.

10. When vacancies occur in the Convention, the Director of the District in which they occur shall order an election to fill such vacancies, which election shall be conducted as provided in Clauses 5 and 6 of this Article. When this is impracticable, the Director and his Council may appoint suitable persons to fill the vacancies.

11. District officers and delegates shall assume the duties of their several offices at the first regular meeting after their election.

12. The expenses of the Delegates shall be borne by the Union; the bills for the same to pass through the course provided by Clause 8, Sec. 1, Art. IV., of the Constitution.

SECTION II.

1. The Convention shall assemble annually on the second Wednesday in September.

ARTICLE III.

SECTION II.

1. The general officers shall constitute an Executive Committee, whose duty it shall be to attend to the proper execution of this Constitution; decide all matters in dispute concerning the interpretation of the Constitution, or between the different subordinate organizations; and attend to such other matters as the interests of the Union may require.

ARTICLE IV.

SECTION I.

6. It shall be the duty of the District Director to call District meetings; preside over all such meetings; declare the result of all District elections; decide all local questions referred to his decision; keep a record of all members admitted to the Union within his District; represent the District in all cases affecting the National Organization, except when special delegates are chosen for that purpose; attend to the distribution throughout his District of all papers, documents, or publications issued by the Union or District; and superintend at all times the affairs of his District. He shall appoint a council or committee of two to assist him in the discharge of his duties, and to consult with in cases requiring his decision or arbitration.

7. It shall be the duty of the District Secretary to keep a record of all proceedings at every meeting of the District, and to issue all notices and summons. He shall keep a list of all officers and members of the District. He shall be the custodian of, and shall be held responsible for, all the documents, books, papers, and supplies of the District. He shall be required to notify all members of their election to fill any District office, and any person of his election to membership.

He shall also perform the duties imposed upon him by the District By-Laws and by the District.

8. It shall be the duty of the District Treasurer to collect all money due the Union from his District, and forward the same, quarterly, with a report, to the Treasurer of the Union.

Before entering upon the duties of his office, the District Treasurer shall give an obligation or bond to the

Union, with at least two responsible securities, each in the sum of fifty dollars, and himself in a like amount.

He shall report monthly to the District the names of all members in arrears for dues, together with the amount of their indebtedness.

He shall keep a book in which shall be recorded the name of each member of the District in such manner as to show when he was admitted, paid the full amount of his dues, was suspended or expelled, withdrew or died, which book shall be the register of the District. He shall also perform the duties imposed upon him by the District By-Laws and by the District.

ARTICLE V.

SECTION I.

1. The President may submit any question that he may deem necessary to the members of the Convention separately, by telegraph or in writing, and upon the receipt of their votes thereon, declare the decision of the Convention, and notify the Recording Secretary accordingly; and such action of the Convention shall be as binding upon the Union as any adopted at a meeting of the Convention.

ARTICLE VI.

SECTION I.

1. No person shall be admitted to membership in this Union who has not attained to the age of eighteen years, who does not bear a good moral character, or who shall be so disabled by bodily infirmity as to be unable to perform the ordinary duties of his position, or who is not an operator of at least three years' experience.

2. Application for membership shall be made to the Director of the District in which the applicant resides.

3. Upon the receipt of such application, the Director shall refer the same to a committee of three, who shall institute a rigid investigation as to the qualifications and character of the applicant, and report at the next regular meeting of the District, or as soon thereafter as practicable; and, if the report be favorable, he shall be balloted for, and, two-thirds of all the members present voting in his favor, he shall be declared duly elected.

4. No application for membership shall be considered unless accompanied by the admission fee. In case the applicant be rejected the fee shall be returned to him.

SECTION II.

I. Operators of experience, engaged in other business to the exclusion of telegraphy, may be admitted as honorary members of the Union, on the payment to the District Treasurer of the sum of ten dollars, as an initiatory fee. They shall not be subject to assessments of any description, and shall have no claims on the Treasury of the Union. They shall be admitted in the same manner as other members, and shall have the privilege of attending District meetings, and may speak upon any subject that may come before such meetings, but they shall not be entitled to vote.

ARTICLE VII.

SECTION I.

1. If any member shall refuse or neglect to pay his indebtedness to the Union or District for a period of six months, he shall be suspended, and if he still refuse or neglect, after nine months, he shall be expelled.

2. Any person expelled from the Union by failure to pay his dues for a period of nine months, may be readmitted by the payment of all sums due at the time of expulsion, together with the amount which would have accrued up to the time of readmission, had he continued a member.

3. In all cases where a member has been notified by the District Treasurer that he is in arrears, it shall be considered that he has received sufficient notice.

SECTION II.

1. All charges against members of the Union must be made in writing to the District Director, who shall appoint a committee to investigate the matter.

2. The committee shall, after charges have been submitted to them, notify the accused that charges are pending, and he shall have one month from the date of such notice to rebut such charges, after which time the District may dispose of the case as two-thirds of the members present may determine.

3. Any member who may be suspended or expelled by a District, may, within one month from the date of suspension or expulsion, appeal to the Executive Committee, whose decision shall be final.

4. The District Director shall notify all other Districts of the suspension or expulsion of members, with the cause therefor.

ARTICLE VIII.

SECTION I.

1. When any member shall become incapacitated for the performance of his duties, by sickness, or accident, that does not proceed from immoral conduct, he shall be entitled to receive the sum of six dollars per week, after the first week, until his malady or accident terminate in restoration or death.

2. A member desiring such assistance shall make application to his Director, who, with his Council, shall investigate and decide upon the application, and, if approved, report the same to the President, who shall, if he entertain the application, order its immediate payment.

ARTICLE IX.

SECTION I.

1. Five or more operators, qualified for membership, may constitute a District, and determine the location of its headquarters.

2. All members of the Union must belong to the District of which the headquarters are in, or nearest to, the place where they are employed.

ARTICLE X.

SECTION I.

1. The fee for admission into this Union shall be five dollars, which will entitle the member to a certificate of membership, to be issued by the District Director.

2. In addition to the initiation fee, each member shall pay into the treasury the sum of six dollars per year, to be collected by the District Treasurer monthly or quarterly, in advance, as the District may deem advisable.

3. When a member changes his place of residence beyond the District in which he is enrolled, he shall be entitled to a Certificate of Transfer upon the payment of all dues accruing to the date of such transfer, signed by the Director and Secretary of the District.

4. Any member in good standing, who may desire to withdraw from the Union, shall, upon written application, delivery of his Certificate of Membership to the Director, and payment of all indebtedness, receive from the Union a certificate of honorable withdrawal, signed by the President and Recording Secretary; which certificate, whenever presented to the Director of any District, shall entitle him to full membership in this Union.

ARTICLE XII.

SECTION I.

1. The District Director shall keep a list of all unemployed members in his District, with their qualifications, and a record of all vacancies that occur, together with the requirements of the situation. The Director and his Council shall use their best endeavors to furnish members with suitable situations, and shall also aid the different companies in procuring proper operators to fill vacancies; and in awarding situations they shall take into consideration the capacity of members in regular rotation, as their names may appear on such list.

By-Laws.

ARTICLE III.

SECTION II.

2. The District organizations shall pay all expenses (other than books and stationery, which shall be furnished by the Union) necessary to carry on the same in accordance with the Constitution and By-Laws, such expenses to be collected as they may deem advisable.

ARTICLE IV.

SECTION I.

1. Upon the decease of any member of the Union, the Director of his District shall cause the event to be published in such papers as may be deemed advisable.

2. In the absence of competent relatives, the District Director and his Council shall take charge of the funeral and render an account to the President of all attendant expenses not exceeding one hundred dollars, that provision may be made for the payment of the same from the funds of the Union.

ARTICLE V.

SECTION I.

1. No operator shall be admitted to membership if proved to have been discharged from any position on account of negligence or unfaithfulness in the performance of his duties, quarrelsome, or disorderly behavior, either in an office or over a line—unless he give satisfactory guarantee to the officers of the District that he has reformed in these respects.

ARTICLE VI.

MISCELLANEOUS.

1. It shall be the duty of every member of the Union to discountenance the instruction of any person in the art of telegraphy who cannot produce evidence of a good moral character, and sufficient intelligence to become a credit to the fraternity.

2. The use of profane or abusive language over the wires shall be discountenanced by every member of this Union.

To Telegraphers.

The foregoing Constitution and By-Laws, adopted at a convention of Telegraph operators held in the city of New-York, November 2, 1863, and revised and amended by later convetions, embodies the principles upon which it is confidently believed a successful and beneficial association can be maintained.

It can be readily seen that the whole tone and character of this Constitution and the By-Laws are of high cast, becoming the class to whom it is to be applied, and suited to the objects to be attained. In outline, if not in detail, it is sufficiently complete; through its provisions we are supported in sickness and adversity; and, if true to its spirit, we shall find it the means of producing great im-

provements in our position, both as a class and as individuals. Its requirements, aside from the paltry amount of regular dues, are simply that we shall preserve our own character, and aid with our best endeavor in building up the character and extending the limits of telegraphy.

By its provisions, neither boys, poor operators, nor men of immoral character can become members of the National Telegraphic Union. All operators who are qualified for membership and who are in favor of carrying forward principles in accordance with those shadowed forth in this Constitution and the By-Laws, which are, in short, mutual support in adversity, the preservation and advancement of the character and standing of the profession—through which alone anything like pecuniary success can be hoped for—are cordially invited to join the Union at once, and by so doing become not merely operators, but earnest agents for the advancement of the whole interest of telegraphy.

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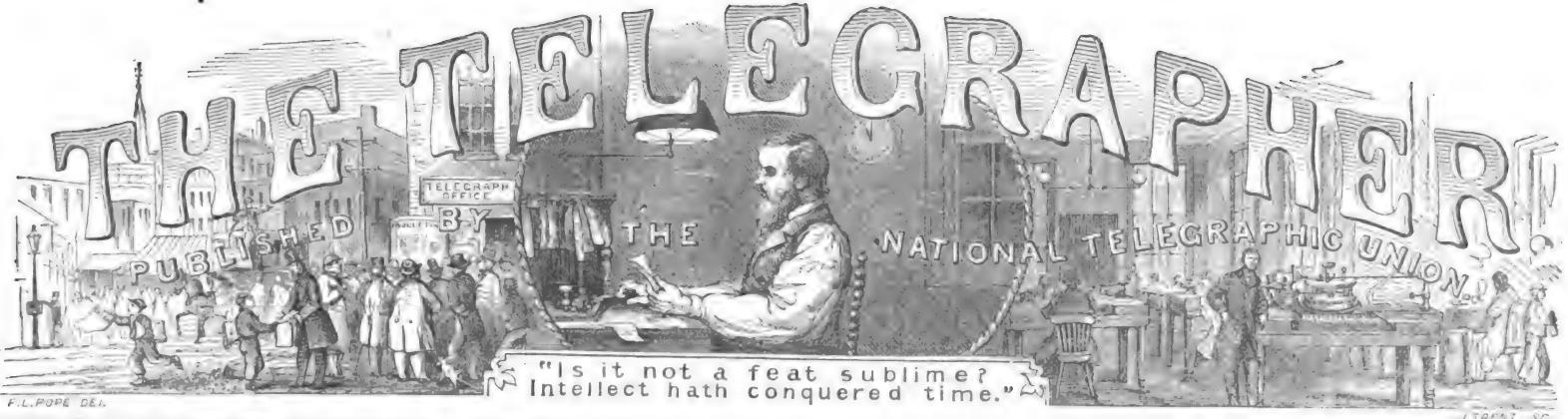
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THE ATLANTIC CABLE INSTRUMENTS.

II.

THE RECEIVING APPARATUS.

In our first article published in a recent number of *THE TELEGRAPHER* the apparatus used in transmitting signals through the Atlantic cable was fully described. The instrument used in receiving these signals will form the subject of the present article. This instrument is known as the "reflecting galvanometer," and is the invention of Prof. William Thompson. It was used in working the cable of 1857, as well as the present one, but the transmitting instrument was of a different kind from that now employed, and which was described in the former article.

The special feature which distinguishes this galvanometer from an ordinary one, is the extreme lightness of the magnet or needle, and the delicacy with which it is suspended in a horizontal position. Instead of an index needle, to render the motions of the magnet visible to the eye, a reflected ray of light is made use of, which, of course, can be made of any required length. This arrangement is of great practical value in measuring faint electrical currents too feeble to be indicated by any other apparatus yet invented. It is especially valuable in submarine telegraphy, because it permits the use of such extremely low battery power.

The object of working with a battery of small power is not—as is supposed by many—owing to the expense incurred, but because that when the insulation of a cable is in the slightest degree defective at any point, a current of intensity has a tendency to aggravate the fault, and to corrode and eat away the conductor by chemical decomposition, at the point where the "escape" occurs, finally destroying the communication altogether. It was undoubtedly the intensity of the currents used in working the cable of 1857, acting in the core in places where the insulation was defective, that proved fatal to its success. This danger has been carefully guarded against in the present cable, only a few cells of Daniell's battery being used for working it. This, in conjunction with the astonishing perfection of its insulation, which is proved by the well-attested fact that signals have been passed through the cable by means of a battery composed of percussion cap, dispels any apprehension that might exist of a similar fate overtaking the present enterprise.

The annexed diagrams give a good idea of the construction and mode of operation of Prof. Thompson's re-

flecting galvanometer. Figure 1 is a side elevation of the instrument, showing a section through the galvanometer coils, and the outer case containing them. Figure 2 is a cross section through the coils, showing the magnet, technically termed the needle. Similar letters refer to like parts in both figures. The magnet *A*, is a small bar of steel one-half inch in length and one-tenth of an inch square, cemented to the back of a very thin circular glass mirror, *a*. The mirror is suspended in a brass frame, *B*, Fig. 2, by an exceedingly delicate silk fiber, and is adjusted in height by the screw, *b*. This frame slides into a vertical groove left in the center of the coil,

ment, and a brilliantly defined image of the slit upon the white ivory scale just above, which is kept in deep shadow by the screen, *Y*. A very minute displacement of the magnet gives a very large movement of the ray of light on the scale, *I*, the angular displacement of the ray of light being double that of the needle.

It is obvious that the ray of light from the needle will be reflected to the right or left of zero on the scale, according as the deflection is produced by a positive or negative current. As explained in the first article, the Morse alphabet is used for signaling, deflections on one side of zero indicating dots, and on the other side dashes.

These can, if required, be recorded by the receiving operator, by means of an ordinary key, register, and local battery, which he may work with his hand, in unison with the movements of the reflection upon the scale.

It will be observed that the end, and not the broad part of the flame of the lamp, *E*, is presented to the slit, *F*, which is also arranged to receive the brightest part of the vertical section of the flame.

The galvanometer coils, *R*, consist of many thousand convolutions of fine insulated copper wire, and they are insulated from the case, *D*, by a disk of hard rubber, *T*, to which it is fastened.

In practice the instrument is so placed in reference to the magnetic meridian that the earth's magnetism has no tendency to interfere with the freedom of its action. In order that nothing may interfere with the action of the instrument a thick pillar of masonry has been erected inside of each station, having its foundation down deep in the earth, and upon which the instrument is placed. A railing is erected around it, so that no vibrations can be caused by spectators leaning against the pillar. The galvanometer is somewhat liable to disturbance from earth-currents, which no means have as yet been discovered of avoiding or counteracting to any great extent.

As may be seen by the accounts published in the daily papers, the rate of speed at which the signaling can be carried on has increased considerably beyond what was at first anticipated, and doubtless in the future still further improvements will be made. The science of ocean telegraphing has by no means yet reached its limit of development, and we shall yet see submarine cables worked with the speed, accuracy, and reliability of a first-class air line. The telegraphic community will await with interest the discoveries in this branch of electrical science which will from time to time be made.

F. L. P.

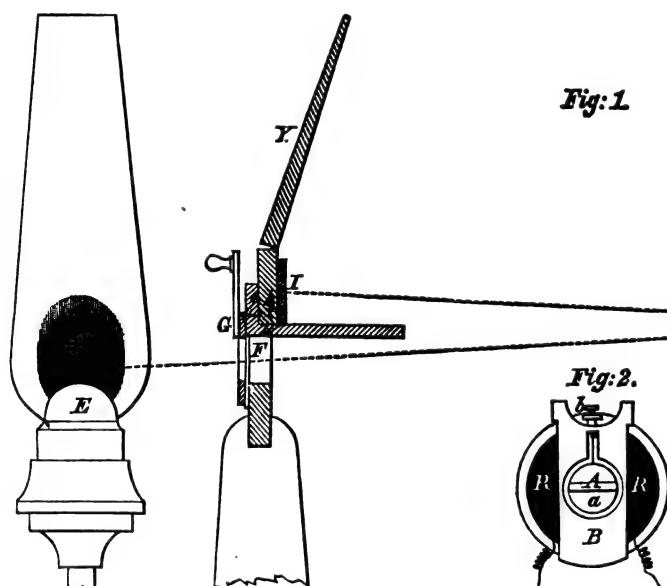
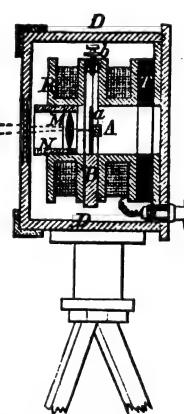
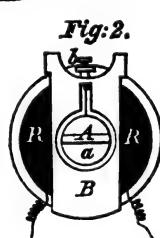


Fig. 1



dividing it into two parts. The coil and mirror are enclosed in the brass case, *D*, this case being pieces of glass let in whenever necessary to permit the passage of light. The object of this arrangement is to prevent the mirror and its attached needle from being disturbed by currents of air.

A narrow pencil of luminous rays from the lamp, *E*, passes through the opening, *F*, which is capable of adjustment, by the slides, *G*. This pencil of light, passing through the lens, *M*, is reflected by the mirror back through the lens upon an ivory scale at *I*, as shown by the dotted lines. The scale is horizontal, extending to the right and left of the center of the instrument, the zero points being exactly opposite the lens. The luminous pencil is brought to a sharp focus upon the scale by a sliding adjustment of the lens, *M*, in the tube, *N*. When the needle is at rest in its normal position, and no current is passing the spot of light which serves as an index, it will remain at zero on the scale.

The operator reads the signals from a point just in the rear of the magnet and coils, the light of the lamp being cut off by the screen, *Y*, so that he only sees the small luminous slit through which the light enters the instru-

PICTURES FROM A TELEGRAPHER'S WINDOW.

SOME WORDS WITH THE RACE OF GUPPY.

Some people are naturally exceedingly low comedians, without the least intention on their part to play comedy at all; and thus some people live in exaggerated burlesques, which they play in most authentic earnest, without a suspicion of the *burlesquerie* of their own performance. Of this sort of people was the young man Guppy in "Bleak House," who plays his *role* of comedy and farce without the least appreciation of his own peculiar ability as a comedian—a very low comedian indeed!

I met Mr. Guppy the other day. I had met him several times before, and had an opportunity to study his physiognomy. Everybody in the office knows him, although really, of course, his name in New-York is not Guppy—a name which he affects in London. In Paris they call him M. Dindon—curiously enough a Parisian epithet for turkey—and in New-York we have no particular name for him; and hence, like that of the hero in Wilkie Collins' quizzical novel, his name is no name whatsoever. But the gentleman to whom I particularly allude is a very low comedian, and, therefore, to all intents and purposes, is an authentic example of the Guppy.

He wears English "tights," sports an English walking-coat, and looks and acts just like the original Guppy when he is making his obeisance to a certain lady in Dickens' inevitable novel. There are original Jacobses, and there are Jacobses who are not original; so there was one original Guppy, and there are hundreds of other Guppies who are not original.

Now, the Guppy who haunts my window is not the original Guppy, although he has no little of the original Guppy's personal appearance and manner. He has large eyes—very large eyes—which protrude and have all the air of saucers; his nose is peculiar, and he has a way of winking with it, as though he would say: "I smell a rat; you can't fool me, old boy." He resents any impertinence on the part of his fellows with great dignity of soul, although with less dignity of language; and in this respect he differs a trifle from the original Guppy, who, it will be remembered, had a peculiar talent for adjusting all things by diplomacy, and a peculiar conceit of shrewdness and tact. In all things else my Guppy, however, is a copy of the original Guppy, who had a facility for diplomacy, as Falstaff had a facility for sinking.

Moreover, it is not to be expected that an American Guppy should be, in all respects, exactly like an English Guppy. There is a difference in Guppies, as there is a difference in baboons; and, on the whole, the American Guppy is more tolerable than the English. He has not so large an amount of that foxy talent for diplomacy which is peculiar to English Guppies and to secretaries of state. He has, in short, a dash of that independence which has been an idiosyncrasy of Americans since the Fourth of July, 1776.

Guppy came in the other day with a telegram. Drop, drop, drop, fell the rain, and dripped drearily from his silken umbrella. "Curse the weather," said Guppy; "it is so sure to rain when I get out."

So saying Guppy stalked up to the desk, and, with a peculiar bow, handed me a telegram.

"On one of our blanks, sir," I ordered rather peremptorily, accompanying the order with a look that would have annihilated Guppy I., but which seemed to have no especial effect on Guppy II., save that of causing his eyes to protrude a trifle more than usual, so that I expected to see them fall suddenly out of his head.

"You are werry impertinent, sah, werry, indeed," drawled Guppy as he turned toward the desk.

"One moment," said I complacently, "one moment, Mr. Guppy," and Guppy turned back with a—

"Of course I shall accept no apology, sah; you should learn not to insult a gentleman."

"Is that original, Mr. Guppy?" I queried, looking him in the face quizzically. "Because if it's original it is good."

Now Guppy had a literary inclination, and to question his originality was to prick him in a tender spot, although like some other people of whom we wot, he did rather a retail than a wholesale business in witticisms.

"You are werry impertinent, sah," drawled Guppy; "werry impertinent indeed, sah; and I shall report you to your superior."

Whereupon Guppy returned to his telegram, which he wrote out, hissing now and then with shut teeth: "Werry impertinent indeed, sah."

Concerning the originality of the remark Mr. Guppy did not, however, condescend to inform me, for which reason—as he would have scouted the idea of plagiarism, had not the proof been palpable—I suspect that the remark, like Miss Higgins' feather at the Donnybrook Fair, was borrowed for the occasion. Be this as it may, I have my suspicions, and shall [have them until Guppy explicitly and categorically, as the pedants with the bricks say, denies the theft.

A word about the race of Guppies, who are peculiar enough to deserve a moment's analysis. I have given a good deal of study to the ethnology of the race, and have come to the conclusion that it is human; differing, however, from humanity, generally speaking, in the abnormal condition of several faculties, and the diagnosis of which may be here scientifically specified:

1. The true Guppy, like the true Uriah Heep, has an abnormal amount of self consciousness; only the former manifests it in airs of pomposity, and the other in airs of exceeding humility. Guppy is apt to say: "Your ladyship, I am Guppy—proper respect to me, your ladyship, for I am Guppy;" while Mr. Heep repeats as complacently: "I'm so very 'umble;" meaning, however, to say, "I seem to be so very humble; but I'm the great and condescending Uriah Heep, madam." And this is the difference between Guppy and Heep; the one being conceitedly pompous, and the other conceitedly humble.

2. The true Guppy has a peculiar facility for diplomacy in small things—varied in New-York, however, with a dash of independence, which he is sufficiently diplomatic never to use, unless it can be used with perfect safety.

3. The true Guppy affects a certain literary eccentricity of dress; never dressing exactly fashionable, but always a trifle more or less than that.

4. He has a habit of saying, "You are werry impertinent, sah; werry, indeed;" by which he means that you are not as respectful as you ought to be, considering the fact that you are talking to a Guppy.

And this is the anatomy of a Guppy, so far as Guppy is American.

C. H. H. PANNELL.

BROOKLYN, Dec., 1866.

Clothes-Line Telegraph.

In the early part of 1863 when the Union army was encamped at Falmouth and picketing the banks of the Rappahannock, the utmost tact and ingenuity were displayed by the scouts and vedettes in gaining a knowledge of contemplated movements on either side; and here, as at various other times, the shrewdness of the African camp attendants was very remarkable. One circumstance, in particular, shows how quick the race are in learning the art of communicating by signals:

There came into the Union lines a negro from a farmer on the other side of the river, known by the name of Dabney, who was found to possess a remarkably clear knowledge of the topography of the whole region, and he was employed as cook and body-servant at headquarters. When he first saw our system of army telegraphs, the idea interested him intensely, and he begged the operators to explain the signs to him. They did so and found that he could understand and remember the meaning of the various movements as well as any of his brethren of paler hue.

Not long after, his wife, who had come with him, expressed a great anxiety to be allowed to go over to the other side as servant to a "secesh woman," whom Gen. Hooker was about sending over to her friends. The request was granted. Dabney's wife went across the Rappahannock, and in a few days was installed as laundress at the headquarters of a prominent rebel general. Dabney, her husband, on the North side, was wonderfully well informed as to all the rebel plans. Within an hour of the time that a movement of any kind was projected, or even discussed among rebel generals, Hooker knew all about it. He knew which corps was moving, or about to move, in what direction, how long they had been on the march, and in what force; and all this knowledge came through Dabney, and his reports always turned out to be true.

Yet Dabney was never absent, and never talked with the scouts, and seemed to be always taken up with his duties as cook and groom about headquarters. How he obtained his information remained for some time a puzzle to the Union soldiers. At length, upon much solicitation, he unfolded his marvelous secret to one of our officers. Taking him to a point where a clear view could be obtained of Fredericksburg, he pointed out a little cabin in the suburbs near the river bank, and asked him if he saw that clothes-line with clothes hanging out to dry.

"Well," said he, "that clothes-line tells me in half an hour just what goes on at Lee's headquarters. You see my wife over there; she washes for the officers, and cooks and waits around, and as soon as she hears about any movement or anything going on she comes out and moves the clothes on that line so I can understand it in a minute. That there gray shirt is Longstreet, and when she takes it off it means he is down about Richmond. That white shirt means Hill, and when she moves it up to the west end of the line Hill's corps has moved up stream. That red one is Stonewall, he is down on the right now, and if he moves she will move that red shirt."

One morning Dabney came in and reported a movement over there. "But," says he, "it don't amount to anything; they're just making believe."

An officer went out to look at the clothes-line telegraph through his field-glass. There had been quite a shifting over there among the army flannels.

"But how do you know but there's something in it?" "Do you see those two blankets pinned together," said Dabney. "Yes, but what of it?" said the officer. "Why, that's her way of making a fish-trap; and when she pins the clothes together that way, she means that Lee is only trying to draw us into his fish-trap."

As long as the two armies lay watching each other on opposite banks of the stream Dabney with his clothes-line telegraph continued to be one of the promptest and most reliable of Gen. Hooker's scouts.—*Frank Moore's Anecdotes.*

Electric Submarine Light.

This light has been tried, and proves, it is said, successful. In the midst of the darkest night, rendered darker still by a heavy fall of rain, the basin of the Lorient, one hundred yards in length, was lighted up as if by the sun at noon-day. The Dibayla, lying at anchor at one hundred yards distant, and the Panama, somewhat nearer, were both found to answer immediately to signals shown by the electric light. A diver descending to a depth of six yards in the sea, and at the same distance from the lanthorn, was enabled to distinguish the numbers on a carpenter's foot-rule which was thrown to him. These experiments are thought to be conclusive as to the utility and value of the light.—*The Builder.*

THE TELEGRAPH OUTSTRIPPED.—There is one thing that doth outstrip the telegraph: "Before they call, I will answer; and while they are yet speaking I will hear."

HUMORS OF THE TELEGRAPH.

AN operator in Providence writes as follows :

" Looking over the 'bulls' in THE TELEGRAPHER this morning brought to my mind the following one, made on that irrepressible 'City Line.' A message which read in the original copy, 'Cotton thirty-three to half,' was copied by the receiving operator thus, 'Come on thirty-three to half.'

" Here is one more I happen to think of: An operator at a small station about eleven miles from here was trying to receive by sound from P——, who was congratulating himself on getting it through so easily. He was rather taken aback when she innocently inquired, in an alphabet peculiar to herself, if that was 'thrown from a reservoir?' The message should have read 'Thrown from his team and killed.'

A FRIEND in Chicago says :

" The following message was sent from this place : ' Wait letter before writing Marsh ;' and was received at destination, ' Wash your hands before writing again.'

" Nor long since an elderly woman entered the cars at one of the Ohio stations, and disturbed the passengers a good deal with complaints about a 'most dreadful rheumatiz' that she was troubled with. A gentleman present, who had himself been a severe sufferer with the same complaint, said to her :

" Did you ever try electricity, madam? I tried it, and in the course of a short time it completely cured me."

" Electricity! exclaimed the old lady; 'yes, I've tried it to my satisfaction. I was struck with lightning about a year ago, but it didn't do me a single morsel o' good!'

" It very seldom does much good as a 'curative process,' we believe!" —*Harper's D*rawer.

A NEW-YORK paper says the subjoined message was handed into the Utica Telegraph Office by a gentleman of that city :

" To —— .

" Third Epistle of John, 13th and 14th verses.

" Signed, ——."

By referring to the text it will be seen that there is quite a respectable letter contained in the verses designated, and a small amount of money saved; namely:

" I had many things to write, but I will not with ink and pen write unto thee :

" But I trust I shall shortly see thee, and we shall speak face to face. Peace be to thee. Our friends salute thee. Greet the friends by name." (3 John, 13, 14.

FROM Ohio we get the following :

" This is a railroad office, and we have a switch-board that will accommodate ten wires. The other day a spruce-looking young man presented himself at the window, looked at the instruments, wires, etc., a few minutes, and pointing to the switch-board asked, 'What is that big thing for?' 'That is a switch-board,' was the reply. 'Does that thing tell how every switch on the road stands?' Of course our answer was in the affirmative.

" An Assistant Superintendent on a road not a thousand miles from Chicago, hands a train order to the operator, saying, 'Here, get me a "13" to that quick.' (After the lapse of a moment): 'Have you got that "13" yet?' Operator—'No, sir; some one broke me with a "23."' Superintendent—'I dont care a d—n if it is a hundred—make it three thousand—but get me that "13."

" The operator spoken of above is Assistant Train-DISpatcher and Circuit Manager; he has the line connected with his residence and has the instruments in his bedroom. He calls us fellows up mornings (at eight o'clock) before he is fairly dressed to find out how trains are running.

" I guess I won't tell you about the time I received a message containing the words 'Jury discharged,' and how I received it 'Jury disagreed,' and cost the recipient a long journey. But I know the mistake was in sending, not in my receiving."

JACK S——, while Manager of an office between Bos-

ton and Albany, was ordered by the Manager of Boston Office to do his business on No. 20; to which he paid no attention. The order was repeated with same result, when the Boston Manager threatened to report him to headquarters. Jack replied : " All orders from headquarters will be obeyed. I have had too many orders lately from headquarters."

The following is from Maine :

" A genuine 'pahdee,' quite aged, living some miles out of town, came into our office one day to sell some 'praties,' and seeing the instruments, battery, etc., wondered if that was the 'tilligrayf.' After gazing steadily for several minutes, he said he had always wanted to ask one question; and this was it : 'Is the wire hollow on the outside or on the inside?'

HERE is a sick "bull":

I was requested to send the following message :

" To L. L. D. & Co.:

" Please send one Doz. Ayers Pills by express.

" Signed, H. B.'

" As it was 'D. H.' I did not think it necessary to write the word dozen in full. The next day brought by mail a note and a box of pills. The note said the order for one dose of pills was received, but a box was the smallest quantity they sold, and they thought it would be cheaper to send by mail than express."

FROM Kansas City we get the following :

" Jokes on our profession seem to be appreciated. I enclose you a couple:

" A message from Louisville to Johnstown, Pa., reaching its last repeating station (Pittsburg), the check for other lines was found to be incorrect.

" Ye Iron City Preceptor, with an eye to business, transmits the following :

" To Louisville Office:

" Tariff hence to Johnston is 45 and 3, etc.

" Signed, PITTSBURG OFFICE.

" John, our Queen City wag, 'who don't spit cotton,' responded with the following :

" To Pittsburg Office :

" Where is Hence, and when was office opened there?

" Signed, LOUISVILLE OFFICE.

" Another: A certain official of the West with auburn ringlets, while superintending the repairs of gas fixtures in the Mound City Office, was accosted by his operator with the following :

" Mr. ——, I should think the expenses of this office might be reduced considerably."

" How, sir? "

" Hire red-headed operators, and do without gas."

" Exeunt omnes for beer."

A HUMOR from Washington :

" Pete' got off a good thing last Sunday morning. Coming into the office he told our worthy chief there was a *roul* on the *pole* in front of the office. 'Bob' hastened to the window, and sure enough there sat a genuine *fowl* on one of the cross-arms, seemingly unconscious of being 'cross' in the least. Imagine his 'phœlinkis!'

A FOREIGNER : " Messages are transmitted by telegraph between London and India in twenty-one hours. Many perplexing uncertainties and blunders are occasioned by the translators. The messages have to pass through seven different countries."

" Mr. Crawford, a member of Parliament, says he lately sent to India the following message : 'The news from America favors the holders.' When it was delivered in India it appeared in this form : 'The news from America savors of soldiers!'

" One day during the late German war, while Bismarck's needle-guns were piercing their way through Bohemia, Reuter's telegraph made the following announcement to the English public : 'The greatest portion of the Prussian army has been taken'—here a break in the dispatch occurred. During the hours which elapsed while the wires

were being repaired, the excitement and funds rose to a high pitch. When at last the connection was made perfect, the war message was finished, thus : 'with camp diarrhoea!' The excitement and funds fell together, flat!"

Magnesium for Voltaic Batteries.

A FOREIGN paper says : "M. Bultinck, of Ostend, has communicated to the Academy of Sciences a note on the use of magnesium instead of zinc as the positive element of voltaic batteries. In order to compare the electro-motive force of magnesium with that of zinc, he employed two pairs of wires—one pair consisting of a wire of copper and one of zinc, and the other pair of a wire of silver and one of magnesium. On plunging the first-mentioned pair of wires into distilled water, having first connected them with a multiplying galvanometer, the needle of the galvanometer, at the moment of the immersion of the wires, moved 30°, and after the immersion had lasted five minutes still marked 10°. On similarly treating the silver and magnesium pair of wires, which were of exactly the same dimensions as the copper and zinc pair, at the moment of immersion the needle of the galvanometer deviated 90°, and five minutes after immersion it remained stationary at 28°. Having thus found the electro-motive force of a magnesium couple to be three times that of a copper and zinc couple, M. Bultinck became desirous to construct a large battery with magnesium as the positive element, but not being able, for the moment, to obtain magnesium in any other form than that of thin wire, he had to be content with making a 'galvanic chain,' of the kind associated with the name of M. Pulvermacher. Having constructed such a chain of silver and magnesium, he found that when simply moistened with pure water it would produce all the effects the production of which by an ordinary Pulvermacher's chain requires that the chain be moistened with either a saline or an acid solution. We knew previously that magnesium possesses greater electro-motive force than any other known metal capable of being obtained in quantity; the new fact brought to light by M. Bultinck is that a battery in which magnesium was the positive element would not need an acid to excite it, but could be excited by water only."

STRUCK BY LIGHTNING.—A curious accident occurred a few evenings since at the *Theater de la Porte*, St. Martin. Madame B., one of the *artistes de ballet*, wore on her head a steel crown, surmounted by a star, to which was attached a wire connecting with an electric battery, which when in play elicited sparks of fire; but the shock proved too severe, and the *danscuse* was struck senseless on the stage; she soon, however, recovered, and resumed her place.

It is satisfactory to find that the three cables in the Channel which were broken during the recent gales have been repaired, and that communication between England and France and England and Belgium is re-established by all the Submarine Telegraph Company's cables. It is worthy of notice that these cables were repaired in the course of one week, showing how easily telegraph cables can be repaired in suitable weather, such as that which has prevailed during the last nine or ten days.—*Mechanics' Magazine*, Oct. 5th.

A SINGULAR phenomenon was witnessed during a thunder-storm in the neighborhood of West Fitchburg. A gentleman passing under a railroad bridge was completely surrounded with electrical lights; every nail-head in the bridge being brilliantly illuminated, as well as the buckles on the harness of his horse, while the lightning played silently along the iron bolts of the bridge, contrasting most beautifully with the intense blackness succeeding each flash. He experienced several slight shocks while passing the bridge.

At the beginning of 1853 the extent of telegraphic communication throughout the world was about forty thousand miles.

Correspondence.

PHILADELPHIA, Dec. 10, 1866.

TO THE EDITOR OF THE TELEGRAPHER:

You are aware of the fact that I have been elected one of the correspondents of your valuable paper from this District, and I have been ever since preparing a paper on a very abstruse subject, which I do not doubt would have created an excitement when it appeared in your columns.

You are also aware, Mr. Editor, that I am a citizen and a tax-payer, and have some reputation in this community as a peacable and respectable man. My amiability has grown into a proverb among my friends and acquaintances, but it has received a shock from which it will not recover for some time to come. You are surprised. I will endeavor to explain.

On Friday evening I had partaken of my usual sumptuous repast, had spanked the children all around, given my wife a "talking to" by way of relaxation, had lit my pipe, and was about to put the finishing-touches on the paper I have alluded to before, when my door-bell was violently pulled. On the door being opened my house was at once taken possession of by a crowd of disreputable persons, male and female, masked and otherwise disguised in fancy dresses. Pirates, Trombones, Romeos, shepherds and shepherdesses, and some of the dresses, I am sorry to say, were very few indeed; that is, beginning too early and ending too soon.

I say, sir, they took possession of my house; they put my furniture in the yard; they made a fiddler play dance-music, to which they danced; they brought hampers of provisions and kegs of what they called lager, of which they presently partook with great glee and rejoicing, and I was powerless to prevent their outrageous conduct, which they persevered in until three o'clock in the morning, depriving me of a square night's rest, and totally destroying the effect of the discipline I had bestowed on my family in the early part of the evening. In fact, they aided and abetted them in every way.

When their masks were taken off I recognized several of the principal ruffians. For fear of bodily consequences, I will only give their initials. (The police have a detailed description.) There was Patrick, Snyder, Carley, Blackman, Winthrop, Maize, and young Nick (the old one's representative), and their "sweethearts" and wives, and a hardened villain named Holloway, who is an old hand at this sort of thing. Forty of them, Mr. Editor. They actually kissed my wife before my face, shook my hands till I thought I had the concentrated extract of "fever-n'ger," and abused my infant son and heir, tossing him about, calling him strange names, and talking to him in a language that I, with all my erudition, am at a loss to comprehend even to this day. The women called it baby-talk; but they can't fool me.

After having danced and made merry to their heart's content they vanished, taking with them two forks and a tea-spoon, which the young man who won them is respectfully requested to return, as he is known.

Should this state of affairs exist longer in a well-regulated community? Must a man open his door with fear and trembling, and lock up his spoons to save them from the grasp of such desperadoes? I think not, Mr. Editor; and should it occur again I will put every one of them in print that they may be known and shunned of all right-minded persons.

In the meantime, the paper before mentioned must wait. My intellect is in no condition to cope with its difficulties. I regret this much, as it is a very fine paper indeed, or will be when I finish it.

Yours truly, ROBERT J. BLACK.

P. S.—We are going to wake up one of the parties to the outrage next week. Revenge is sweet! Ha! ha!!

R. J. B.

NEW-YORK, Dec. 4, 1866.

TO THE EDITOR OF THE TELEGRAPHER:

HEREAFTER when you hear a telegrapher complaining that his salary will barely meet his expenses it would be well to call his attention to the following example, which is set before them by the directors of a large company, and let them profit thereby. (?)

A few days since one of the "department clerks" called on the director known as the (dis) organizer, for an increase of salary. During the conversation he very imprudently admitted that he was obliged to pay twenty-five cents per day for lunches. The director looked at him with perfect astonishment, and exclaimed: "What! twenty-five cents for a lunch? Why! I never pay more than ten cents for a lunch. You can get a bowl of milk and piece of bread or a glass of Lager and a cracker for ten cents, which I consider ample for a lunch."

This was too much for the clerk, who, hat in hand, humbly bowed himself from the room, with a very hungry idea of the director.

I believe it is customary, when we wish to ask a favor of a man, to ask him out to dinner, and insist upon his having enough, as it would be folly to ask a favor of a hungry man. Now we can understand the meanness of the directors of a certain company. The poor fellows are hungry.

DOT.

NEW-YORK, Dec. 15, 1865.

TO THE EDITOR OF THE TELEGRAPHER:

ONE has lately passed from our midst who deserves the everlasting gratitude of the entire telegraphic community. He was the first to introduce and to appreciate the value of telegraphs in connection with railroads, and in face of a strong opposition carried out his project of constructing a line along the road of about five hundred miles, of which he was the general superintendent—the pioneer railroad telegraph. Its value as an adjunct to railroads soon became understood, and now there is scarcely a road in the country without its telegraph, while in every direction throughout the land we find telegraphers holding prominent positions who commenced their career upon the Erie line under the superintendence of the subject of this communication. They too will remember with good reason the promotions which he was always ready and desirous to make among the operators, and the peculiar interest which he manifested in all matters relating to the telegraph.

Looking to the Erie Road itself, we find now its most important offices filled by those who commenced as operators, and even message boys.

Many a reader of this, therefore, will drop a tear to the memory of Charles Minot, the telegrapher's friend.

L. G. T.

The First Idea.

Now that we have an ocean telegraph in successful operation it is interesting to read the various plans that were proposed to bring about this object. The subjoined very strange one, taken from an old periodical, may prove of some interest:

"Mr. J. B. Lindsay, of Dundee, who is at present in Glasgow, propounds a startling theory, that of forming an electric telegraph betwixt Great Britain and America, without employing submerged wires, or wires of any kind. At a meeting in the Athenaeum Mr. Lindsay illustrated his method. A large trough of salt water was employed, across which he transmitted the electric current, without any metallic conductor, the water itself being the only medium of communication. Mr. Lindsay explained that he had obtained similar results over a breadth of sixty feet of water. Some calculations have been made in regard to the expense, and Mr. Lindsay computes, according to his present information, that the cost of the necessary battery and land wires to establish a communication between England and America would not exceed sixty thousand pounds."

THE ONE CONDUCTOR.—Supposing that a person wishing to send a message from New-York to Buffalo, by lightning, knows how to construct an electric battery; but when he comes to consider how he will transmit the impulse through hundreds of miles, he looks at an iron wire and says: "This is dull, senseless, cold, has no sympathy with light; it is unnatural, in fact, irrational to imagine that this dark thing can convey a lightning message in a moment." From this he turns and looks at a prism. It glows with the many-colored sunbeams. He might say: "This is sympathetic with light," and in its flashing imagine he saw proof that his message would speed through it; but when he puts it to the experiment, it proves that the shining prism will convey no touch of his silent fire, but that the dull iron will transmit it to the farthest end of the land.

And so with God's holy truth. It alone is adapted to carry into the soul of man the secret fire which writes before the inner eye of the soul a message from the unseen One in the skies. Other proposed conductors may flash more in the showy light, but they will not convey the invisible fire.—*Repository.*

WASHINGTON, Dec. 11.—The recent decree by the Juarez Government, declaring forfeited the grant to the Louisiana Company for a railroad and telegraph across the Isthmus of Tehuantepec, and granting a like franchise to the Transit Company, has attracted great attention here. On inquiry, it is ascertained that the facts are as follows:

In 1852 a grant was made to Sloo and his associates, and on account of failure to perform conditions, the grant was annulled by President Comonfort, and the franchise given to the Louisiana Company. That company having failed to commence work within the time prescribed, applied to Juarez in 1857 for an extension, which was granted, and failing again, applied to him in 1860 for another extension, which was granted. By the terms of the last extension they were compelled to commence the work by the 1st of April, 1862, and complete it in seven years unless interrupted by war or insurrection, and the interruption duly proved to the satisfaction of the Mexican Government. The work was never commenced, and it is alleged by the Juarez Government that there was no war or insurrection in Mexico up to the date limited for its commencement, and that the Isthmus has remained in possession of the Juarists throughout the French invasion. The grant was owned and controlled by citizens of Louisiana, and the rebellion in the South was doubtless the cause of the delay in commencing and completing the work. After the close of the rebellion, the agent of the company wrote to President Juarez for an order directing the authorities on the Isthmus to permit them to commence work. Juarez replied that the grant was lapsed, and recommended the company to apply to him for its revalidation, with proof of good cause for failure to perform. The company, instead of adopting the suggestion of Juarez, forthwith sent an agent to Maximilian and got a decree from him recognizing the grant as subsisting, and authorizing the company to remove from Louisiana to New-York, and to change its name to the New-York and Tehuantepec Railroad and Steamship Company. President Juarez was applied to meanwhile by the new Transit Company for the grant, and after waiting several months for the Louisiana Company to apply, in pursuance of his suggestion, he issued a decree, Oct. 15, 1866, declaring their grant null and void, and giving the franchise to the new company. The Louisiana Company have recently applied to our Government to interfere and induce President Juarez to revoke his decree annulling the franchise. The Government has replied that it knows nothing of such decree having been issued by President Juarez, but at all events that the question is one in which the Government of the United States will not interfere. All the documents and facts affecting the rights of both companies have been

submitted to the Hon. Caleb Cushing, who has given an opinion on them. He regards the action of President Juarez as final and conclusive as to the rights of all parties, and says that no matter who may be the future President of Mexico, the decree of Juarez will be respected as law, he being the only person in Mexico recognized as President or even having pretensions as such. He regards the claims of the Louisiana Company, under the decree of Maximilian extending its franchise, as being of about such legal and political effect as would an order of Jefferson Davis extending and declaring valid some privileges which the President of the United States had, in the form of law, declared lapsed and lost.

DISTRICT PROCEEDINGS.

ALBANY DISTRICT.—Regular meeting, convened in its new room in Exchange Building, Dec. 4.

Minutes of three former meetings were read and approved.

The Committee on Room reported that, through the kindness of the N. Y. C. R. R., it had been enabled to procure the pleasant room that we were now convened in. It was not yet in the condition that it should be, but it hoped before the occurrence of another meeting to have it in a much more attractive shape.

The report was accepted, the committee discharged, and a hearty vote of thanks tendered to its single member (Mr. Whipple) for his earnest work in procuring the room.

The committee on Mr. McAllister's application for membership reported that Mr. McAllister had withdrawn his application on the ground that he thought the initiation fee was too large.

Accepted, and committee discharged.

The Director made a verbal report of the doings of this District since it was last convened.

Mr. Whipple moved that a vote of thanks be tendered to the members of the Baltimore District for their generous treatment of our delegate to the late Convention. Unanimously adopted.

This action is rather late, but our District had not been convened in over two months, which explains it.

The Director announced Messrs. John Gay and H. L. Waterbury as his council.

Mr. Whipple moved that Mr. Rice be appointed correspondent of THE TELEGRAPHER from this District. Carried.

Inquiry was made in regard to delinquent members of this District, whether any move had been taken in their cases.

The Director announced that he was at work in the matter, and hoped to report upon all cases at the next meeting.

No other business coming up, the meeting was adjourned at 9:45 P. M.

PHILADELPHIA DISTRICT.—Regular meeting, December 3.

Minutes of last meeting approved.

Committee appointed at last meeting to inquire into the qualifications of James Kennedy, reported favorably. By a unanimous vote the rules were suspended, and Mr. Kennedy was elected by acclamation.

Committee on Ball reported progress, stating that they had secured "Musical Fund Hall" for the 12th of March. They also announced that the tickets would be ready for distribution in a week or two. Committee was continued.

On motion, Messrs. Mott, Saxton, and Winthrop were appointed committee to act in conjunction with the Director to secure a suitable room for the use of this District.

On motion, the Director was instructed to order thirty-five copies of the Supplement containing the proceedings of the Baltimore Convention, the cost of same to be paid from the funds of the District.

The Chair made a few remarks, urging upon the meeting the necessity of expelling all members who are over nine months in arrears, and suspending all who are over six months.

Three members were expelled, and action on one postponed until next meeting.

The meeting instructed the District Director to carry out the Constitution and By-Laws by suspending all who were over six months in arrears, depriving them of voting or serving on committees until they come forward and pay up their dues.

Philadelphia District is alive, and is determined to discard all who fail to meet their sworn obligations to the Union.

DETROIT DISTRICT.—Regular meeting, Dec. 2. Minutes of last meeting approved.

District Treasurer read his report for the quarter ending November 30, showing cash on hand, N. T. U. account, \$21 75; District account, \$5 78.

Rules were suspended, and James Gillespie, of Grand Rapids, Mich., elected a member.

A. R. Walsh, having accepted a position with the Merchant's Union Express Co., his resignation was accepted, to date from August 31.

Amendment to District By-laws adopted, changing hour of meeting from 2 to 2:30 P. M.

Mr. Irvine gave notice he would offer an amendment at next meeting to hold meetings once every two months.

District Director was instructed to recommend to the Executive Committee the expulsion of James Bay and J. H. Peterson for non-payment of dues.

ST. LOUIS DISTRICT.—Regular meeting, Dec. 9.

Reading minutes of previous meeting dispensed with. H. A. Keeley, Amos B. Markley, and E. L. Todd were unanimously elected to membership.

The committee to whom was referred the case of C. D. Thomas reported in favor of his admission upon his paying all back dues.

Considerable discussion ensued in regard to the propriety of admitting him to membership in this District without a transfer from the District to which he last belonged, or in case of the District having been abolished, an official statement of his standing and the amount of his dues as shown by the records when turned over to the Executive Committee. A motion finally prevailed admitting him upon payment of all dues from the time to which he could produce receipts from the Cincinnati District for their payment.

The committee appointed at the last meeting submitted a series of By-laws, which were adopted as reported by the committee.

One hundred and fifty copies were ordered printed for the use of the District, and a committee appointed to superintend their publication.

The Treasurer's report was laid over until the next meeting.

Mr. M. D. Crain presented a bill of five dollars paid for printing circulars, and the Secretary a bill of one dollar for postage stamps, both of which were allowed, and payment ordered.

The committee appointed to conduct election for delegate to fill vacancy reported that I. McMichael had received a majority of the votes cast, and he was declared elected.

The Director, Mr. McKenzie, being compelled to leave during the progress of the meeting, called Mr. McMichael to the chair, who presided with characteristic gravity and dignity, filling the place of our worthy Director in a most satisfactory and creditable manner.

Adjourned at four o'clock P. M.

WASHINGTON DISTRICT.—Regular meeting, Dec. 1.

Report of W. J. Dealy, delegate, which was laid over from previous meeting, was accepted and placed on file.

Committee of three appointed to consult with Prof. Henry and arrange for the delivery of another lecture before the members of this District.

Thomas H. Sherman was elected correspondent of THE TELEGRAPHER. Adjourned.

BOSTON DISTRICT.—Special meeting, Dec. 11.

Messrs. E. J. Swan, of Fall River, and J. G. Tobey, of Worcester, were elected to membership.

No other business of interest transacted.

CORRY DISTRICT.—Regular meeting, Dec. 5.

Meeting called to order at eight o'clock P. M.

The Director being absent, Mr. W. C. Long was elected Chairman *pro tem.*

Proceedings of the last meeting adopted.

The Chairman made a few brief remarks in regard to the financial condition of the District.

District Treasurer's quarterly report read, showing cash, \$50 90, and uncollected, \$15, to balance a total of \$65 due from the District to the Union for the quarter ending November 4, 1866. Also \$4 80 cash, and \$5 50 uncollected, to balance a total of \$10 30 due to the District for the same period.

After being submitted and examined by a committee composed of Messrs. Crawford, Wade, and Dwyer, it was accepted. Adjourned.

NEW-YORK DISTRICT.—Special meeting held December 13th.

On motion of Mr. Redding, Mr. F. L. Pope was declared a member of this District, pending his transfer from California District.

Minutes of previous meeting approved.

Treasurer's report received, showing receipt of sixty-six

dollars Union dues and fifty cents District fines. The Treasurer stated that Messrs. Seibert, R. H. Smith, H. F. Thurber, and O. W. Willis refused to pay their dues.

Resignation of A. J. Burton accepted. W. J. Purdon proposed for membership by Mr. Redding.

The report of the committee on the accounts and affairs of Mr. Steinhoff, while District Director, received and accepted. The report condemns the conduct of Mr. Steinhoff while Director in very strong terms. It shows a very great neglect of the duties of his own office, and an assumption of the duties of another important District officer, to the detriment of the District and the Union; and it recommends the adoption of severe measures immediately to place the District in good standing.

Upon motion of Mr. Clarke, so much of the report as relates to the financial condition of the District was referred to the Treasurer.

Mr. Clarke moved that the District procure badges for Messrs. Allen and Parsons, those gentlemen having forwarded the money for badges to the late Director but failed to receive them. Carried.

The report of Committee on Delegates' Report accepted. On motion of Mr. Clarke, the committee on previous ball were allowed an extension of time to prepare report.

The committee on the coming ball reported progress. Committee on Mr. Pope's case asked an extension of time, which was granted.

Mr. Thomson moved that Messrs. Thurber, Seibert, and R. H. Smith be ignominiously expelled for non-payment of dues. On motion of Mr. Clarke, action was deferred, that their cases might be referred to a committee. The last motion carried.

Mr. Redding offered the following: "That the committee appointed in the case of Messrs. Smith, Thurber, and Seibert be instructed to procure a list from the Director of all delinquents in the District, and notify them that charges are pending against them for non-payment of dues, and that committee report at next meeting," which was carried unanimously.

The Director appointed Messrs. Collins, Redding, and Thompson as such committee.

Mr. Marah offered the following: "That the number of members necessary to constitute a quorum to do business be reduced to nine."

Carried. Adjourned.

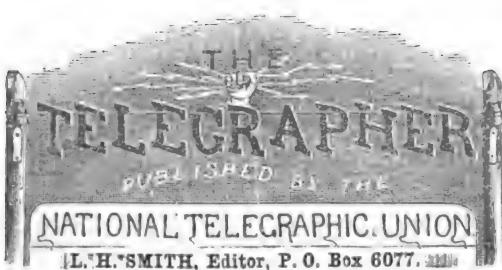
A MEETING of the Great Eastern Steamship Company was held in London on the 9th Oct., Sir Daniel Gooch, Bart., presided. He proposed, "that the 2500 shares in the Anglo-American Telegraph Company held by this company be divided among the shareholders in proportion to their respective holdings; that in cases where a proprietor would, by reason of the number of shares held by him in this company, be entitled to a fraction part of a share in the Anglo-American Company, he be paid for such fractional part at the rate current for the said shares in the London Stock Exchange this day." He congratulated the shareholders upon the success of their undertaking, and the happy conclusion arrived at in connection with the laying of the Atlantic cable. The great ship had been very successful; no one could have been in it for two years, as he had been, without being convinced that its large size and great capabilities were necessary to the laying of the cables. The shares represented £25,000, and he was glad to say that their present market price was £41,250. With respect to the £50,000 four per cent stock of the Atlantic Telegraph Company, the Directors were of opinion that, looking to the uncertainty of the future operations of the ship, it would be undesirable, at the present moment, to part with them, but to dispose of them as the future might warrant.

The resolution was agreed to.

The sum of £2000 was voted to the Directors for their services.

If an iron wire be twisted during or even after the passage of a voltaic current through it, the wire becomes magnetic. When the wire is twisted in the manner of a right-handed screw, the point at which the current enters becomes a south pole; in the opposite case it becomes a north pole. If, during the passage of the current, the wire be twisted in different directions, the polarity changes with the direction of the twist.

THE TELEGRAPHER.



WEDNESDAY, JAN. 2, 1867.

THE EAST INDIA TELEGRAPH.

This seems the era of grand telegraphic schemes and enterprises. None of them are too startling. It has often been said that "you can get as much money to build telegraph lines as you want," and we now begin to realize the truth of the remark.

Only fourteen or fifteen years ago, when telegraphing was a fresh born babe, and we were making our virgin efforts to gain a knowledge of the profession, there were three lines through this great State. True, not more than one, if so many, paid a dividend; still they all did a good business for those days, and with only two wires each. Consolidations, leases, and purchases have from time to time opened the field for new enterprises. Several years passed before any one ventured new lines; but now every one seems crazy with line building. Modest lines of from two hundred and fifty to five hundred miles in length are no more thought of. A line now a days must span the continent, reach from the lakes to the Gulf, web the earth or tunnel the sea, for the passage of thought.

The Pacific and Atlantic Co. has just opened one section of its series, which are intended to reach from Philadelphia and Baltimore to Chicago and St. Louis. The National Co. is steadily taking subscriptions, and firmly holds to its determination to do nothing until all of its stock is taken. The Atlantic and Pacific Co. are still struggling for a hearing, while the Globe, with the irrepressible Van Choate at its head, is just ready to perform Puck's miracle. The International Ocean Co. (the Cuban cable) has just commenced to make a stir in the world. Having had life blown into it by Congress, it is now just trying its strength. Its commercial importance and its money-making qualities, if properly managed, can hardly be overestimated, and we shall confidently look forward to the performance of some marvel.

One of the grandest and most money-making enterprises now dawning upon the world is that of the company the title of which heads this article. The Celestial Empire will soon be netted and webbed like any common country. Its former extravagant presumption will soon be toned down to real every-day life. "The son of the sun" will soon be but a simple emperor, or possibly a president. Just think one moment of those strangely primitive people being metamorphosed into civilized Christians!

In 1864 the Legislature of New-York incorporated the East India Telegraph Co., with a capital of \$500,000, and two years later the same Legislature gave this company permission to increase their stock by a vote of a majority of the stockholders to \$5,000,000, in shares of \$100 each. Among the names of the incorporators we find that of the present very active and efficient Vice-President, Mr. N. Michels. With the exception of brief notices in the papers, this company has remained silent, quietly perfecting its arrangements and organization. Within the last year it has obtained through its agents in China, and the good offices of Minister Burlingame, valuable concessions from the sunny emperor.

The wires of this company are to connect with those of the India line by cable at Hong Kong, from which point they start and connect with all the large cities and important towns along the sea-coast to Pekin. At thi-

latter point it is intended to build a line to the great wall on the north, and there to connect with the Russian system of wires which were built to form part of the Collins Overland Telegraph.

By the prominence given to the expected connection with the Russian-American Telegraph, we fancy the East India Company cannot have heard of the first step having been taken to abandon this once most wonderful undertaking.

The whole length of the Chinese line will be as now stated 1435 miles; necessary to connect now with the Indian line, 1520 miles, and with the Russian system, 850 miles. The first section, that from Hong Kong to Shanghai, will be complete in a few months' time; the contract for the cable is about being given. The Vice-President of the company soon leaves for China, stopping on his way in London to contract for the sea line.

The importance of this line will be understood when we state that the foreign commerce of India amounts to \$16,000,000 per annum, and the population of some of the cities through which the line will pass is something to be considered. Canton contains 1,000,000 of inhabitants; Hong Kong, 200,000; Amoy, 250,000; Foo-Chow, 1,250,000; Ningpo, 300,000; Shanghai, nearly 2,000,000; Nankin, 400,000; Pekin, 2,000,000; and the empire itself, the oldest in the world, over 420,000,000, and has an area of 5,000,000 of square miles.

The revenues of the empire, derived from customs, excise, etc., amount to over \$120,000,000 per annum. Silver and copper are the only currency used.

This will be the first line ever erected in the territory governed by the favorite child of the God of Day. Dr. Macgowan has brought the language of the country down to the capacity of the Morse alphabet. He is now in the Flowery Kingdom acting as agent for the company. When all the connections are complete this line will have two routes of communication most of the way (ignoring the Russian-American line) with America, whose interest in China is not inconsiderable, as may be judged by reference to the many merchants whose interests lie in that country. Nor is this all the company will have to depend upon. The natives themselves soon learn (as proved in California) to use the wires to a large extent.

The company are now calling in ten per cent of their stock, and intend to call in not more than fifty per cent.

TELEGRAPHIC MISCELLANEA.

CHANGES, ETC.—T. F King, Manager W. U. T. Company's Wilmington, N. C., Office, has resigned, and Mr. John W. Brown promoted to Managership. Mr. King is now working in the same company's "T. W." Washington Office.

C. H. Gogel has resigned his position in the W. U. Company's Washington Office, and on 10th inst. entered the service of the B. & B. Company's in same city.

J. W. Tillingshast, formerly Chief Operator of the W. U. Company's Buffalo Office, has resigned and taken the agency of the Associated Press, same city. Thomas Henning succeeds Mr. T. as Chief Operator.

C. B. Smith has resigned his position with the I. & M. Company, and gone into other business at Milwaukee.

Mr. A. McCoy, late of the A. and G. W. Railroad Telegraph at Meadville, has left that employ and accepted position as Report Operator in the W. U. Company's Titusville Office.

THE Superintendent (E. B. Chandler) of the Fire Alarm Telegraph in Chicago has recommended that the department be increased by the addition of fifty signal-boxes.

W. B. W., HARRISBURG.—Your "Pencilings" are very good, but not telegraphic enough for our pages.

PHILADELPHIA, Nov. 16, 1866.

NOTICE.—Charges are pending in this District against H. H. Woods, Reese, Welsh, and T. A. Charles.

C. CLAY YEAKLE, District Director.

ALBANY, Dec. 4, 1866.

CHARGES are pending in the Albany District against Thomas R. Fox and H. S. Upson.

S. C. RICE, District Director.

The World says Mr. D. H. Craig has succeeded in effecting an arrangement with the celebrated Reuter, of London, for foreign news dispatches via the cable, to commence after the first instant.

We are under obligations to the editor (Geo. Frs. Dawson) of *The Journal of Mining* for a copy of *The Buenos Ayres Standard* of Oct. 26, giving a diary of the laying of the cable in the River Platte between Buenos Ayres and Montevideo. *The Standard* neglects to mention one important fact, viz., the length of the cable.

W. H. WOODRINE, of St. Joseph, Mo., desires the address of Edward Kinney.

THE W. U. Company have opened offices at Huntington and North Becket, Mass.

THE Pacific and Atlantic Company opened their line from Baltimore to Pittsburg on the 10th ult.

PHILADELPHIA, Dec. 7, 1866.

JOSEPH BRADLEY, a first-class Morse operator, desires a situation.

Address

M. D. BUCKWELL, District Director.

ON Tuesday night, Dec. 7, a game of chess was played between a Chicago operator and the Oshkosh office. They commenced at half past seven in the evening, and ended at half past two next morning, resulting in a victory to Oshkosh. This is the second game played, the former one resulting in a victory to Chicago.

The Toronto Globe says that a telegraph operator named H. A. Bogardus, now in that city, has fallen heir to \$2,800,000 through the death of relatives, who hold an interest in the Trinity Church property in New-York. The claim is in the hands of Messrs. Bostwick, Seward & Griswold, of New-York city.

THE residence of Professor Morse, situated a short distance below Poughkeepsie, was broken into by burglars late on Sunday night, Dec. 9, and the whole building ransacked from top to bottom, Mr. Morse and family being absent. The locks on nearly every door in the house were broken, and the rooms thoroughly overhauled. A box containing a very valuable set of telegraph instruments belonging to Professor Morse was also broken into and the contents nearly all destroyed. The robbers also visited the wine-cellars and broke the necks of many bottles of valuable wine.

THE Western Union Telegraph Company's steamer George S. Wright arrived at San Francisco on Dec. 10th, from Victoria, with Col. Bulkley and staff. It is supposed the company's bark Golden State has been frozen in at Anadyr River. Being a storeship she has plenty of provisions. Some two thousand poles have been thus far erected in Asia and America.

THE Western Union Telegraph Company's steamer Nightingale, from Petropaulowski, arrived at San Francisco Dec. 8. She brings the remains of the late Major R. Kenicutt, en route for Chicago.

THE Secretary of War in his report estimates the appropriation necessary for telegraphing and postage for the ensuing year at \$18,000.

THE Lenoir Gas Engine Company is in want of a cheaper, but equally effective, electrical apparatus than the clumsy Ruhmkorff coil and acid battery now used. The President, John B. Murray, is prepared to contract for one thousand suitable electric machines for the Lenoir Gas Engines. Cannot some of our host of inventors supply them?

STOCK SALES Dec. 29.—W. U., 46½; Russian Ex., no sales; Insulated, \$9.75; B. & B., \$8.50 & \$9.25. Our last quotation of B. & B. was "bulled" by the printer. It should have been \$9.25.

CONGRESSIONAL.—In the House, on Dec. 6th, Mr Washburne (Rep., Ill.) offered the following resolution:

“Resolved, That the Post-Office Committee be instructed to inquire into the expediency of conferring on the Post-Office Department the same jurisdiction and control over the various telegraph lines now in operation, or hereafter to be constructed, that is now exercised over post-offices and post-roads, and to report by bill or otherwise.”

Which was adopted.

In the Senate, Dec. 10, Mr. Morgan presented a resolution of the Chamber of Commerce of New-York in favor of establishing another line of ocean telegraph, to be under American control.

The resolution was referred to the Committee on Commerce.

Mr. Brown (Rep., Mo.) offered the following resolution, which was agreed to:

“Resolved, That the Committee on Post-Offices and Post-Roads be instructed to inquire into the expediency of authorizing the Post-Office Department to construct and operate telegraph lines along the principal mail routes, or such of them as it may deem necessary, or to contract with such lines as may be already established, if that shall be deemed most advisable for the use and control of such lines, and in connection with a postal business to establish offices at such points as may be determined upon, open at all hours to the public and the press for safe and speedy transmission of dispatches under proper regulation and at fixed minimum rates; the committee to report by bill or otherwise.”

In the House, on Dec. 10th, Mr. Darling (Rep., N. Y.) introduced a bill granting a right to land a submarine cable of the American Atlantic Telegraph Company. It was read twice and referred to the Post-Office Committee. The bill grants this corporation, organized under the laws of the State of New-York, for the purpose of establishing telegraphic communications between the United States and other nations, via Bermudas, Azores Islands, and Portugal, the sole right and privilege of the Atlantic coast within the jurisdiction of the United States for the period of twenty years; the company to commence operations in two years and the Government to have priority of use.

In the Senate, on Dec. 12, Mr. Morgan (Rep., N. Y.) introduced the following joint resolutions of thanks to Cyrus W. Field, which were referred to the Committee on Foreign Relations:

“Resolved, That the thanks of Congress be, and hereby are presented to Cyrus W. Field, of New-York, for his foresight, courage, and determination in establishing telegraphic communication by means of the Atlantic cable traversing through mid-ocean and connecting the Old World and the New, and that the President of the United States be requested to cause a gold medal to be struck, with suitable emblems, devices, and inscriptions to be presented to Mr. Field.

“Resolved, That when the medal shall have been struck the President shall cause a copy of this joint resolution to be engrossed on parchment, and shall transmit the same, together with the medal, to Mr. Field, to be presented to him in the name of the people of the United States of America.

“Resolved, That a sufficient sum of money to carry this resolution into effect is hereby appropriated out of any money in the Treasury not otherwise appropriated.”

Two bills were introduced in the House on the 14th Dec., as follows: By Mr. Kasson, to authorize the purchase or construction of military and postal lines of telegraph, under the direction of the Post-Office Department.

By Mr. Washburne, for the construction of a Government telegraph from Washington to New-York city. Both were read twice and referred to the Committee on the Post-Office and Post-Roads, and ordered to be printed.

We will publish the text of these bills in our next issue.

PATENT CLAIMS.—60,432.—MAGNET FOR TELEGRAPHS.—Tal. P. Shaffner, Louisville, Ky. Ante-dated November 25, 1866.

I claim making electro-magnet of the armature, by means of a current induced by the main circuit, substantially as herein set forth, in connection with the electro-magnet, A, A, or its equivalent, for telegraphic purposes.

AMERICAN CLAIMS IN ENGLAND:

2932.—IMPROVEMENTS IN INSTRUMENTS FOR TRANSMITTING TELEGRAMS BETWEEN REMOTE PLACES, ESPECIALLY ADAPTED FOR SUBMARINE AND SUBTERRAEAN LINES OF COMMUNICATION.—George Little, New-York city. Nov. 10, 1866.

THE P. and A. Telegraph Company have made their arrangements to open three offices in Pittsburg; one in Duquesne Way, one in the Board of Trade rooms, and one will soon be opened in Fifth street, near the W. U. Office. There will be a repeater put in the Pittsburg Office which will enable Oil City and New-York to work direct. This will increase the business from this point very much.

THE Western Union Telegraph Company have opened an office at T. M. Butman's, Sargent's Block, Malden.

We are in receipt of the August and September numbers of *The Bulletin Telegrafico*. It is a monthly publication, in pamphlet form, containing fifty pages of reading matter interesting to telegraphers. It is published (probably by the Government) in Turin, Italy. The editor has our thanks for his courtesy. We are now in receipt of all the telegraphic journals published throughout the world.

THE B. & B. Telegraph Co. have opened an office in the Capitol, in the House Post-office, formerly occupied by the U. S. Co. The W. U. and Insulated Co.'s offices are open as usual, making in all four offices open to the public in the Capitol.

THE first telegram ever sent over a wire in this country was on the 14th of June, 1844; and directly thereafter a member of Congress from Indiana was defeated for re-election, in consequence of his vote sustaining an appropriation of \$25,000 to aid the enterprise, on the ground that a man who could be made to believe in such a humbug was too big a fool to go to Congress.

WHY is a happily-married couple like the Atlantic cable? Because they are spliced to their Heart's Content.

THE minister of a Congregational chapel at Surbiton, England, has put an electric telegraph between the pulpit and the vestry to enable him to call for the services of the chapel servants and officers whenever he wants them.

IN 1865 the length of the various telegraph wires centering in Paris was about 50,000 miles—enough to put a girdle twice around the earth. There were six hundred and ten offices for the working of these lines, and the number of messages sent over them was 1,967,748, for which the charge was \$1,251,655.—*Washington Chronicle*.

THE telegraph of Switzerland is the property of the State, and they charge one cent per word for any distance.

ELECTRICITY moves with a greater velocity than light, which traverses two hundred thousand miles in a second of time.

WE find the following story in one of our exchanges: “A few months since Mr. Seward was to deliver an important political speech at Auburn, which it was necessary to telegraph to the New-York papers the same evening. The rule regulating the precedence of messages is, as all our readers know, ‘first come, first served.’

The New-York Times correspondent, being something of a strategist, sent a few sentences about the meeting, and then retained possession of the line by sending the first chapter of Genesis from a Bible lying in the office, keeping the operator busy until the arrival of more copy, when the Mosaic account of the creation was succeeded by the political arguments of Mr. Seward.”

ELECTRO-MAGNETISM has been applied to locks; the principle being to attach a plate of soft iron to the door which, when shut, is in contact with the poles of an electro-magnet, the fastening and opening of the lock being effected by the forming and breaking of the circuit. Any number of locks throughout the house may be secured or opened at the same time.—*National Magazine*.

THE ladies of Waukegan, Mich., hit upon a novel plan to “raise the wind” to repair their cemetery ground. On election evening they had a levee in the largest hall in town, and made arrangements to receive telegraphic dispatches of the elections from all the States. They also provided oysters and other luxuries. The entrance fee of twenty-five cents was charged to all comers.

A DISPATCH dated New-Westminster, December 8, announces the arrival at Victoria of Col. Bulkley, chief officer of the Russian American Telegraph Expedition.

ELECTRICITY is now employed in firing the charges of nitro-glycerine used in blasting at the Hoosac Tunnel.

WESTERN UNION TELEGRAPH COMPANY.—The Western Union Telegraph Company will pay, January 21, a semi-annual dividend of 2 per cent on the capital stock, equal to 8 per cent per annum on the present market price, 49, of the company's stock. The following is an official statement of the company's business for the four months ending with October:

	Receipts from all sources.	Expenses for construction, to other lines.	Net earnings.	Expended for construction.
July....	\$362,292.77	\$410,882.40	\$151,910.57	\$118,474.77
Aug.....	548,716.96	346,742.81	201,974.05	94,822.66
Sept....	556,935.95	298,931.99	258,028.96	46,528.10
Oct.....	623,528.81	344,245.07	279,283.94	53,075.66
Total,	\$2,291,491.19	\$1,400,301.77	\$891,192.42	\$312,899.19

The capital stock of the company is \$39,300,000 and \$3,000,000 bonds, making a total of \$42,300,000. The company has over 100,000 miles of wire, and comprises the old Western Union, United States, American, and other companies, with all their valuable franchises and contracts for exclusive right of way with railroad companies. The rate of expenses to receipts will decrease naturally, as the consolidation of the companies will reduce largely the number of agents.—*The World*.

At the meeting of the Chamber of Commerce, Dec. 6, Mr. Ruggles offered the following resolutions:

“Resolved, That the Chamber of Commerce of the State of New-York are deeply impressed with the importance, not only to the commerce, but to the security and peace of the United States, of ascertaining, by proper soundings, the facilities afforded by the bed of the Atlantic Ocean for laying lines of telegraphic cables, directly connecting our Atlantic coast with the Western coast of France and of Southern Europe, and do hereby respectfully petition the Government of the United States to employ such portions of the National navy as may be required for making the necessary soundings without delay.

“Resolved, That copies of the present resolution, duly authenticated, be transmitted to the President of the United States and to both Houses of Congress.”

The following resolution was adopted by the Chamber:

“Resolved, That copies of the remarks submitted by the Hon. Samuel Ruggles, in explanation of the preceding resolutions, be transmitted, with a copy of the resolutions, to the President of the United States and the two Houses of Congress.”

The following piece of intelligence was culled from a magazine published some thirteen years ago:

“There are now in operation in the United States eighty-nine main and branch lines of telegraph, whose united length is 16,729 miles. The cost of construction averages \$150 per mile. Total length of the Bain line, 2012 miles; of the House line, 2400 miles; the balance is mostly Morse's, whose instruments can transmit 8000 to 9000 words per minute.”

How sadly the Morse system has degenerated since those days!

The new régime of the Western Union Telegraph Company is quite close-fisted, and under it the operators have to pay for all their little private conversation over the wires, with which they used to amuse themselves. A lady operator, at Boston, has resigned her position because she is not allowed to talk with the Springfield and Hartford offices.—*Boston Paper*.

THE Tasmanian Government offers 6 per cent per annum on costs to any company that will lay a telegraphic cable between Victoria and Tasmania.

DIED.

AT Somerville, Mass., of paralysis of the brain, on Monday, Dec. 10, Charles Minot, Esq., late General Superintendent of the Erie Railway, aged 54 years.

AT Elkhart, Dec. 6th, of consumption, Wilber F. Allen, aged 25 years. Member of Chicago District.

On Sunday, Dec. 16th, 1866, at her residence, No. 81 Hart street, Utica, N. Y., of pleura pneumonia, Mrs. Nancy Parsons, consort of Linus Parsons, deceased, and mother of Wayne H. Parsons, Chief Operator Western Union Office, Utica, aged 73 years, 11 months, and 15 days.

THE TELEGRAPHER.

PREAMBLE

TO THE

Constitution of the National Telegraphic Union.

We, Telegraphers, uniting ourselves for the purposes of mutual protection in adversity, upholding and elevating the character and standing of our profession, promoting and maintaining between ourselves and our employers just, equitable, and harmonious relations, and advancing the general interests of the fraternity; recognizing the principle that the interests of the employer and employee are identical, and firmly believing that a union among ourselves, established upon just principles, will result in manifold benefits, not only to us, but also to those who employ us, and be the means of enlarging and establishing, upon a better foundation, the peculiar business to which we look for our support, with the hope that our endeavors will merit the commendation of all good men, and draw down upon our undertaking the benign influence of our Creator, do hereby ordain and promulgate for our organization and future government, the following Constitution.

EXTRACTS

FROM THE CONSTITUTION AND BY-LAWS.

ARTICLE II.

SECTION I.

3. No person shall be a delegate who shall not have attained the age of twenty-one years.

4. The number of delegates shall not exceed one for the first fifty members, and one extra delegate when the exact proportion shall be twenty-five members in excess; but each District comprising *not less than fifteen* members shall be entitled to one delegate.

5. At the regular meeting in July the District shall nominate candidates for District officers and delegates.

6. No member who is six months in arrears for dues shall be entitled to vote, or be eligible to any office, and shall not be enumerated in the basis of representation.

10. When vacancies occur in the Convention, the Director of the District in which they occur shall order an election to fill such vacancies, which election shall be conducted as provided in Clauses 5 and 6 of this Article. When this is impracticable, the Director and his Council may appoint suitable persons to fill the vacancies.

11. District officers and delegates shall assume the duties of their several offices at the first regular meeting after their election.

12. The expenses of the delegates shall be borne by the Union; the bills for the same to pass through the course provided by Clause 8, Sec. 1, Art. IV., of the Constitution.

SECTION II.

1. The Convention shall assemble annually on the second Wednesday in September.

ARTICLE III.

SECTION I.

1. The general officers shall constitute an Executive Committee, whose duty it shall be to attend to the proper execution of this Constitution; decide all matters in dispute concerning the interpretation of the Constitution, or between the different subordinate organizations; and attend to such other matters as the interests of the Union may require.

ARTICLE IV.

SECTION I.

6. It shall be the duty of the District Director to call District meetings; preside over all such meetings; declare the result of all District elections; decide all local questions referred to his decision; keep a record of all members admitted to the Union within his District; represent the District in all cases affecting the National Organization, except when special delegates are chosen for that purpose; attend to the distribution throughout his District of all papers, documents, or publications issued by the Union or District; and superintend at all times the affairs of his District. He shall appoint a council or committee of two to assist him in the discharge of his duties, and to consult with in cases requiring his decision or arbitration.

7. It shall be the duty of the District Secretary to keep a record of all proceedings at every meeting of the District, and to issue all notices and summons. He shall keep a list of all officers and members of the District. He shall be the custodian of, and shall be held responsible for, all the documents, books, papers, and supplies of the District. He shall be required to notify all members of their election to fill any District office, and any person of his election to membership.

He shall also perform the duties imposed upon him by the District By-Laws and by the District.

8. It shall be the duty of the District Treasurer to collect all moneys due the Union from his District, and forward the same, quarterly, with a report, to the Treasurer of the Union.

Before entering upon the duties of his office, the District Treasurer shall give an obligation or bond to the

Union, with at least two responsible securities, each in the sum of fifty dollars, and himself in a like amount.

He shall report monthly to the District the names of all members in arrears for dues, together with the amount of their indebtedness.

He shall keep a book in which shall be recorded the name of each member of the District in such manner as to show when he was admitted, paid the full amount of his dues, was suspended or expelled, withdrew or died, which book shall be the register of the District. He shall also perform the duties imposed upon him by the District By-Laws and by the District.

ARTICLE V.

SECTION I.

1. The President may submit any question that he may deem necessary to the members of the Convention separately, by telegraph or in writing, and upon the receipt of their votes thereon, declare the decision of the Convention, and notify the Recording Secretary accordingly; and such action of the Convention shall be as binding upon the Union as any adopted at a meeting of the Convention.

ARTICLE VI.

SECTION I.

1. No person shall be admitted to membership in this Union who has not attained to the age of eighteen years, who does not bear a good moral character, or who shall be so disabled by bodily infirmity as to be unable to perform the ordinary duties of his position, or who is not an operator of at least three years' experience.

2. Application for membership shall be made to the Director of the District in which the applicant resides.

3. Upon the receipt of such application, the Director shall refer the same to a committee of three, who shall institute a rigid investigation as to the qualifications and character of the applicant, and report at the next regular meeting of the District, or as soon thereafter as practicable; and, if the report be favorable, he shall be balloted for, and, two-thirds of all the members present voting in his favor, he shall be declared duly elected.

4. No application for membership shall be considered unless accompanied by the admission fee. In case the applicant be rejected the fee shall be returned to him.

SECTION II.

I. Operators of experience, engaged in other business to the exclusion of telegraphy, may be admitted as honorary members of the Union, on the payment to the District Treasurer of the sum of ten dollars, as an initiatory fee. They shall not be subject to assessments of any description, and shall have no claims on the Treasury of the Union. They shall be admitted in the same manner as other members, and shall have the privilege of attending District meetings, and may speak upon any subject that may come before such meetings, but they shall not be entitled to vote.

ARTICLE VII.

SECTION I.

1. If any member shall refuse or neglect to pay his indebtedness to the Union or District for a period of six months, he shall be suspended, and if he still refuse or neglect, after nine months, he shall be expelled.

2. Any person expelled from the Union by failure to pay his dues for a period of nine months, may be readmitted by the payment of all sums due at the time of expulsion, together with the amount which would have accrued up to the time of readmission, had he continued a member.

3. In all cases where a member has been notified by the District Treasurer that he is in arrears, it shall be considered that he has received sufficient notice.

SECTION II.

1. All charges against members of the Union must be made in writing to the District Director, who shall appoint a committee to investigate the matter.

2. The committee shall, after charges have been submitted to them, notify the accused that charges are pending, and he shall have one month from the date of such notice to rebut such charges, after which time the District may dispose of the case as two-thirds of the members present may determine.

3. Any member who may be suspended or expelled by a District, may, within one month from the date of suspension or expulsion, appeal to the Executive Committee, whose decision shall be final.

4. The District Director shall notify all other Districts of the suspension or expulsion of members, with the cause therefor.

ARTICLE VIII.

SECTION I.

1. When any member shall become incapacitated for the performance of his duties, by sickness, or accident, that does not proceed from immoral conduct, he shall be entitled to receive the sum of six dollars per week, after the first week, until his malady or accident terminate in restoration or death.

2. A member desiring such assistance shall make application to his Director, who, with his Council, shall investigate and decide upon the application, and, if approved, report the same to the President, who shall, if he entertain the application, order its immediate payment.

ARTICLE IX.

SECTION I.

1. Five or more operators, qualified for membership, may constitute a District, and determine the location of its headquarters.

2. All members of the Union must belong to the District of which the headquarters are in, or nearest to, the place where they are employed.

ARTICLE X.

SECTION I.

1. The fee for admission into this Union shall be five dollars, which will entitle the member to a certificate of membership, to be issued by the District Director.

2. In addition to the initiation fee, each member shall pay into the treasury the sum of six dollars per year, to be collected by the District Treasurer monthly or quarterly, in advance, as the District may deem advisable.

3. When a member changes his place of residence beyond the District in which he is enrolled, he shall be entitled to a Certificate of Transfer upon the payment of all dues accruing to the date of such transfer, signed by the Director and Secretary of the District.

4. Any member in good standing, who may desire to withdraw from the Union, shall, upon written application, delivery of his Certificate of Membership to the Director, and payment of all indebtedness, receive from the Union a certificate of honorable withdrawal, signed by the President and Recording Secretary; which certificate, whenever presented to the Director of any District, shall entitle him to full membership in this Union.

ARTICLE XI.

SECTION I.

1. The District Director shall keep a list of all unemployed members in his District, with their qualifications, and a record of all vacancies that occur, together with the requirements of the situation. The Director and his Council shall use their best endeavors to furnish members with suitable situations, and shall also aid the different companies in procuring proper operators to fill vacancies; and in awarding situations they shall take into consideration the capacity of members in regular rotation, as their names may appear on such list.

By-Laws.

ARTICLE III.

SECTION II.

2. The District organizations shall pay all expenses (other than books and stationery, which shall be furnished by the Union) necessary to carry on the same in accordance with the Constitution and By-Laws, such expenses to be collected as they may deem advisable.

ARTICLE IV.

SECTION I.

1. Upon the decease of any member of the Union, the Director of his District shall cause the event to be published in such papers as may be deemed advisable.

2. In the absence of competent relatives, the District Director and his Council shall take charge of the funeral and render an account to the President of all attendant expenses not exceeding one hundred dollars, that provision may be made for the payment of the same from the funds of the Union.

ARTICLE V.

SECTION I.

1. No operator shall be admitted to membership if proved to have been discharged from any position on account of negligence or unfaithfulness in the performance of his duties, quarrelsome, or disorderly behavior, either in an office or over a line—unless he give satisfactory guarantee to the officers of the District that he has reformed in these respects.

ARTICLE VI.

MISCELLANEOUS.

1. It shall be the duty of every member of the Union to disown the instruction of any person in the art of telegraphy who cannot produce evidence of a good moral character, and sufficient intelligence to become a credit to the fraternity.

2. The use of profane or abusive language over the wires shall be disowned by every member of this Union.

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OF THE

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SAMUEL F. DAY,
HENRY A. MANN. }

DUDLEY OBSERVATORY, October 24, 1866.

S. F. DAY, ESQ.:

DEAR SIR:

In answer to your inquiries regarding the electro magnets you built for me, I would make the following statement:

1st. For magnets of the same size, and a given amount of Battery, they gave more power or effective working force than any I have ever used.

2d. They work with the armature closer to the core than any I have yet tested, and, as a necessary consequence, there is a great gain in the amount of effective work done, since the force is inversely proportional to the square of the distance of the armature from the core.

I have also examined with pleasure the performance of your magnets on the main Telegraphic Lines. From all that I have observed I am convinced that you make a more effective magnet than any that has come under my notice; and I have, perhaps, seen all kinds in general use.

I am, very truly, yours,

G. W. HOUGH, Director.

DUDLEY OBSERVATORY, February 23, 1865.

S. F. DAY, ESQ.:

DEAR SIR:

Having examined your electro magnets in the telegraph offices here, I am desirous of obtaining information on one or two points. From what I saw in regard to their operation I conclude you have made a very important discovery in the mode of construction.

Having used electro-magnets constantly during the last six years, I am greatly interested in everything pertaining to the application of electricity, either as a motive or regulating power. I should like information on the following points:

1st. In what ratio do your "receiving" magnets exceed in power the best magnets now in use, having the same length of coil?

2d. Can you construct "coarse" wire, or quantity magnets (for a local circuit) which will have double or treble the effective working power of the ordinary magnets of this kind now in use, the length of coil and batteries being the same in both cases?

I am, very truly, yours

G. W. HOUGH, Director.

The Telegrapher:

PUBLISHED BY THE
NATIONAL TELEGRAPHIC UNION.

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THE TELEGRAPHER is published in New-York, on the first and fifteenth of every month, and besides matters of associate interest, is devoted to the interests of telegraphers all over the world, and will contain telegraphic information from all parts of the globe.

It is not confined to any one policy, but will seek to correct abuses, give honor and praise wherever and whenever due, and endeavor to elevate the standard of operators, both morally and scientifically.

It will not support any one person or corporation, but will aim to treat all alike, censuring either or both, when merited, and praising alike when praise is won.

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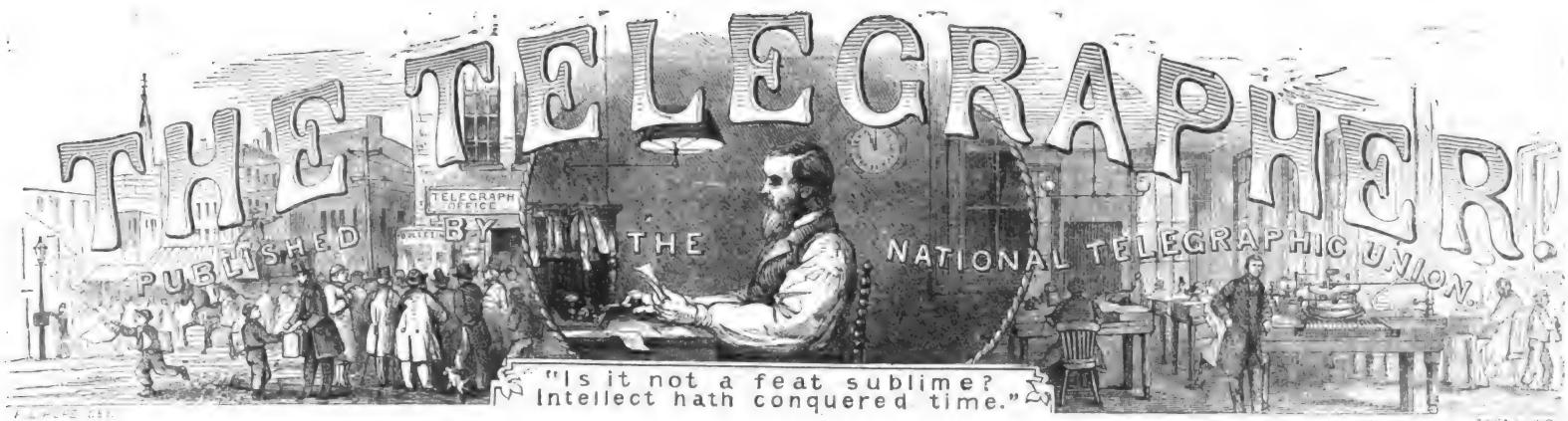
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W. E. RICE, Sec.



Vol. III.

New-York, Friday, March 1, 1867.

No. 47.

A NEW SUBMARINE CABLE.

DeMorat's Patent.

An entirely new mode of constructing and operating submarine cables, has recently been patented by Prof. A. J. DeMorat, a European gentleman residing in Philadelphia. As it is attracting considerable attention among electricians we print the following description in the inventor's own words:

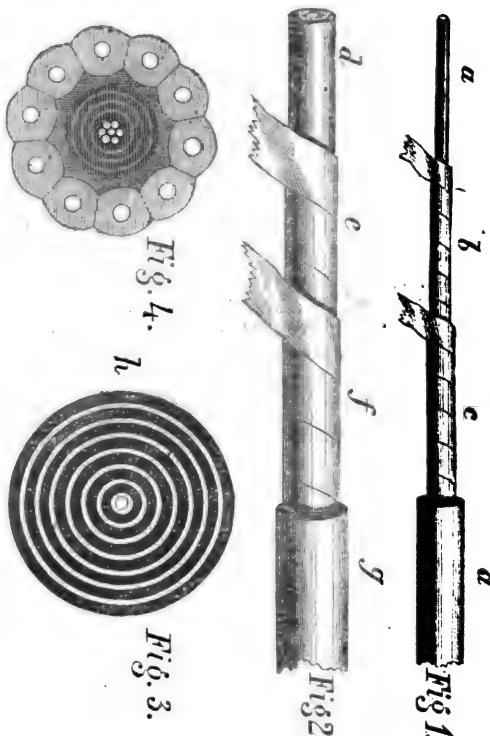
"In *a*, figure 1, is represented an iron or steel, or seven copper wires used as a foundation or supporter. This is covered by lapping a ribbon of thin copper tightly around it spirally, *as* at *b*, then again another lapping of a similar copper ribbon over the joint of the first breaking joint as it is called, as at *c*. These two lappings of copper make a perfect copper tube. This may not appear of any value particularly when seven copper wires are used, but to this alone we can insure a perfect mass of the seven wire to act as a solid conductor. This prevents the gutta-percha or the insulating substance to force itself between and insolate the wires from one to 3, 4, or seven as it may happen at intervals; each wire becoming individually insulated for the want of homogeneity in the seven wires.

"The whole is then covered with some perfect insulator, as at *d*. Then another lapping of copper ribbon, as at *e*, and the joint of this covered with a second ribbon of copper, as at *f*, forming another perfect copper tube or cylinder, as at *g*. This operation is continued until as many cylinders are obtained as may be desired, as in Figure 3, where there are represented seven copper cylinders or tubes. The whole is then covered with gutta-percha, and afterwards with jute, or any other material, to guard against abrasion of the inner coatings.

"In all submarine cables great difficulty is experienced to overcome the condensation or absorption of the electric fluid, acting by induction from the surrounding masses, acting as conductor and reservoir of electricity. To this is due the retardation of signals and velocity of the current flowing in submarine cables. This cable possesses peculiar advantages over all others; that is, because they in themselves embody the insulating substance which other conductors in the same cable have on the outer surface; nothing but a cylinder can accomplish this; in other words, all conductors radiate from a common center, and the atmosphere of one forms a part of the other. Not so in common conductors. They in themselves (it does not matter how you may group them) have a part of their surface exposed to an individual atmosphere.

"The novel way of working this cable is, that each signal made requires a double key, which conveys instantaneously a positive or signal current, and a negative or neutralizing current in this way. Figure 1, *a*, or the core, one or the seven wire, for the signal current, *b* and *c*, or the first cylinder of copper to be used for a negative conductor, both currents to start from the same end with the same tension, and at the same time, by the double key above mentioned. In this way it is found by experiment that the retardation is entirely overcome in the same time, placing the cable in a neutral condition for the subsequent

signals. Some competent electrician says that a House printing instrument can be worked on such a cable. As a neutralizer of earth currents or induction the outer of all cylinders is reserved for the passage of a continuous current of electricity, thereby embodying the whole inner conductors, guarding them from all local disturbances."



This new cable is opening a new field of inquiry and investigation. We shall give from time to time any new facts or matters of interest that we may obtain in this connection.

THE ATLANTIC CABLE.

How Long Will it Last?

In an article upon the subject of submarine telegraphs, *The London Engineering* says: "How long the Atlantic cables will last before an accident occurs is a matter of some speculation. We shall be astonished if two years pass without an interruption. Repair would, it would seem, be possible if carefully performed; but the fate of the Algerian cable, of exactly similar pattern, and which has been entirely abandoned, must, to any reflecting mind, be a warning that a cable of that pattern will not remain forever in such a condition as to admit of repair, whilst the sudden failure of cables in deep water—as if broken by their own weight and decay at the edge of submarine precipices—must give little hope of that perpetual security in deep water which has so often as a theory been carefully promulgated. That the company do not themselves believe in this permanency, we gather from their

refusal to renew debentures and other monetary transactions."

In connection with this subject it may be stated that the Malta and Alexandria cable, which was laid some five or six years ago, has broken again on the section between Malta and Tripoli. This cable was covered with an armor of unprotected, ungalvanized wire, which by this time must be pretty thoroughly eaten away by rust. Breakages are becoming more and more frequent, and the life of the cable is evidently rapidly drawing to a close. It would be interesting to know what imaginable excuse there could have been for the use of ungalvanized armor for this important and costly cable.

In the second Atlantic cable, however, the protecting armor is composed of galvanized wire, which will be free from corrosion by the water of the ocean for a long time at least, and the failure of the Malta and Alexandria line cannot with any propriety be looked upon as an evidence of the speedy decay of the Atlantic cables.

Longitude by the Atlantic Cable.

The telegraphic method of determining longitudes far surpasses all others in the accuracy of its results. Its inception is due to S. C. Walker, of the United States Coast Survey, but its full development in the form which is now employed in the Coast Survey is the work of Dr. B. A. Gould, of Cambridge, who, everything considered, stands undoubtedly at the head of American astronomical science.

During the past fifteen or twenty years the Coast Survey has determined by this method the longitude differences of a series of points in the United States, with an exactness far surpassing what has ever been attained on the other side of the Atlantic. Indeed, in all work of this kind Europeans seems to meet with singularly poor success.

The difference of longitude between England and America has hitherto rested upon the chronometric expeditions instituted by the Coast Survey during the years of 1849-51 and 1855. Fifty chronometers were transported between Liverpool, Eng., and Cambridge, Mass., three times in each direction across the Atlantic. The probable error of the result of these expeditions was nineteen-hundredths of a second. The value thus obtained, though for all practical purposes sufficiently precise, is not so for the necessities of astronomical science in its present refined state. When, therefore, the success of the cable provided telegraphic transatlantic connection with England, parties of the Coast Survey were formed under the direction of Dr. B. A. Gould, to take advantage of this means of obtaining a value more precise than that furnished by the chronometric expedition, allusion to which has been made.

The peculiarities in the methods and apparatus employed in working the cable, render the process of determining the longitude by its means different in many respects from that by the land telegraph lines. New obstacles, which made success exceedingly doubtful, were to be

surmounted, and new sources of error eliminated. But thanks to the genius, experience and perseverance of Dr. Gould, these have been overcome, and results of remarkable precision elicited. The probable error of the resulting longitude is about four hundredths of a second. Perhaps it will give the reader a clearer idea of the nicely implied in this, by stating that a distance of about nineteen hundred miles has been measured, and that the measure is not probably more than forty feet from the truth.

The time required for a signal to pass through the cable has been discovered with still greater precision to be thirty-one hundredths of a second; which is probably not in error by one hundredth of a second.

This is equivalent to a velocity of 6020 miles a second, and is notably less than the velocity of the electric fluid upon land lines, which numerous observations have shown to average 16,000 miles a second.

The Fire Alarm Telegraph.

INJUNCTION TO BE OBTAINED AGAINST ITS USE BY THE FIRE COMMISSIONERS.

BETWEEN five and six years ago the city contracted with a firm named Robinson & Co. to put in a fire telegraph, to connect with all the fire alarm stations below Fourteenth street, for the sum of \$40,000. Associated with the said Robinson was a Southern man named Ellis, who, it appears, was the patentee of the telegraph apparatus, and who, it is alleged, was part owner in the contract. Soon after the same was made, \$10,000 of the amount, it is alleged, went to certain city officials. The work was commenced, and, under the supervision of Mr. Robinson, the principal station was in the basement of the City Hall. He was assisted by two persons, one at present a bell-ringer and the other a fire telegraph operator.

When the work had nearly been completed a second resolution was presented in the Common Council, which passed one of the boards, appropriating \$60,000 to have the telegraph extended to all the engine-houses above Fourteenth street. This resolution, however, was lost, owing to the organization of the Metropolitan Fire Department, and the consequent removing of the power over the telegraph to the new Commissioners. Previous to the passage of the new fire bill Mr. Robinson made several attempts to give a public exhibition of his new invention, but in each instance he failed, being unable to make it work satisfactorily for public criticism. Owing, it is said, to the refusal of the Commissioners to give to the above gentleman the management of the telegraph, he (Robinson), on the transfer of the implements, refused to give any information as to its operation. Mr. Chapin, the present superintendent, was therefore requested to work out the ideas of the inventor; but, up to the present time, has not been able to discover them, although he has given patient study and experimented constantly with the machines.

It seems that Ellis, the alleged partner of Robinson, took sides with the South during the late war—he being a Southerner—and joined the rebel army, holding, it is said, quite a high position. At the close of the rebellion he came North and made claims for his interest in the above contract; but Robinson, it is alleged, refused to recognize him in any manner. Ellis accordingly proceeded to Washington, and after a considerable lapse of time succeeded in obtaining a pardon from the President restoring him to full citizenship. Returning to the city again, he made claims to his right, title, and interest in the said telegraph, claiming, it is said, to be the inventor, Robinson still denying his (Ellis') title in any way. Ellis, procuring counsel, last week made application in the United States District Court for an injunction against the use of the telegraph. The arguments in the case will be heard on the 16th inst., when all the facts in the case will be developed. It will certainly show up how contracts are

rushed through the Common Council. Should the injunction be granted, the Fire Department will be deprived of the use of the present telegraph.

Small Wire for City Lines.

THE superior conductivity of large over small wires is a fact which seems to be ignored by the majority of our telegraph engineers, and most especially in the construction of city lines, where a small (No. 12) iron wire is substituted for the larger (No. 7 or No. 9) wire of the main lines.

Although it is conceded there is some difference between the conductivity of circuits composed entirely of large wire and those composed partly of large and partly of small wire, yet the difference is generally supposed to be so small as to be immaterial in the construction of telegraph lines.

The following calculations are based on the well-known theory of Ohm, and the facts that the intensity of a current is inversely proportional to the length of the conductor and directly proportional to the area of a section of the conducting wire.

From the experiments of M. Pouillet we find that the current supplied by ten cups of battery transmitted upon a copper wire .004 of an inch in diameter and .6 of a mile in length, is sufficiently strong for telegraph purposes, and from this we can easily calculate the distance which the same current would be transmitted on No. 7, No. 9, or No. 12 wire.

According to a law pointed out by M. Ohm, "that the force in a closed circuit is directly proportional to the sum of the electro-motive forces that are in activity in the circuit, and inversely proportional to the total resistance; also that if we increase or diminish the resistance of any part of a circuit the total intensity of the current diminishes or increases, all other things being equal, in a proportion which is the same as that existing between the resistance added or removed and the total new resistance of the entire circuit."

From which we deduce the formula that I (the intensity of the current) is equal to E (the sum of the electro-motive forces) divided by R (the sum of the resistance), i. e.,

$I = \frac{E}{R}$. Represent the resistance added or removed by r , and we have

$$I' = \frac{E}{R+r} \quad \text{and} \quad I'' = \frac{E}{R-r}$$

$I : I' :: \frac{E}{R} : \frac{E}{R+r} :: \frac{1}{R} : \frac{1}{R+r}$, from which we deduce $I - I' : I :: r : R+r$, and $I'' - I : I : r : R-r$. Namely, the diminution of intensity ($I - I'$) is to the primitive intensity (I) as the added resistance (r) is to the total new resistance ($R+r$). And the increase of intensity ($I'' - I$) is to the primitive intensity (I) as the diminished resistance (r) is to the total new resistance ($R-r$).

From the above laws and formulae I obtain the following. If the wire used by Pouillet

.004 inch diameter	area .000013	conveys current .6 miles
.0008 "	(No. 12) "	.005129 "
.04418 "	(No. 7) "	.016349 + "

That is, the intensity of the current on No. 7 wire is nearly 3.2 times as great as on No. 12 wire.

Since a battery of ten cups is able to transmit a current over 780 miles of No. 7 wire and over 245 miles of No. 12 wire we might represent the resistance of one mile of No. 7 wire by $1/780$ th of E and the resistance of the same distance of No. 12 wire by $1/245$ th of E . Then in 100 miles of No. 7 wire we will have

$$I = \frac{E}{R} = \frac{E}{\frac{100E}{780}} = 7.8.$$

Therefore in a circuit of 100 miles of No. 7 wire the intensity of the current is represented by 7.8.

Take the same circuit and run the city lines at the

various stations with No. 12 wire, which at the least calculation will give us two miles of No. 12 wire and (98) ninety-eight of No. 7. We now have the intensity of the new circuit represented by

$$\frac{E}{R+r} \quad \text{in which} \quad R = \frac{98E}{780} \quad \text{and} \quad r = \frac{2E}{245} \quad \text{and} \\ I = \frac{E}{\frac{98E}{780} + \frac{2E}{245}} = 7.4.$$

Thus in a circuit of ninety-eight miles No. 7 wire and two of No. 12 wire we have the intensity of the current represented by 7.4, one-twentieth less than in the former circuit where no small wire was used.

We think we have understated the amount of No. 12 wire generally found in a circuit of one hundred miles, but from the above formula one can easily compute the loss arising from a greater proportion of small wire in the circuit. Practical telegraphers may be unable to reconcile the amount of battery (10 cups) and the length of circuit (780 miles) on a No. 7 wire, but they must remember that the calculations are based on the conductivity of copper wire, and supposing the wire perfectly insulated. The working of the cable and the long circuits of the Russian telegraph ought to be sufficient proof of the practicability of working long circuits with small batteries.

The loss of one-twentieth of the intensity of the current may seem a slight one, but I think with our defective insulation we can scarcely afford to lose even so much for a fancied superiority of looks about the offices. Telegraphy is far from being perfect, and it is only by stopping these leaks when we find them that we can hope to make our system what it should be—quick, sure, and to be depended upon.

Cleveland, Jan., 1867.

FELLUR OPERATORS:—Wur yu evur tu a Bawl givun bi thee "Nu Yorck Deestricht Nashinal Telergraffurs Unyun"?

If soe, I thinck yu muste hav bin mutch pleesed. Thare is mutch tu bee sene ande plenteo tu amuze yu Thee telergraffe peepul ar generallie speekin goode nachurd, ande endevur tu maik it plesunt fore awl, ande thee Ladees, "Godd bless 'em," tha air bownd tu maik yu enjoimself, thatt is, iff smylin facus ande brighte ise air anee cryterium tu goe bi, butt, iff yu air a crosse olde mann, ande doan't wishe tu feel happee, doan't goe tu anee Bawl.

I wente tu thee thurd annyuall Bawl of thee Telergaffers of this citee, helde at "Ervin Hawl," Fryda nite, ande I thort it was "Hipurkoon"! indecede! I was tickuld awl ovur, ande am saife in saing, as Lord Dundreary (the Cosmopolitan membr) express'd it, "Thee Bawl was a perfekt succcess."

I see bi thee papurs that a "mistur Jinkius" was presunt, ande assitud wun of the reporturs, given him the names of thee ladees as also some ideas regairdin the toylet or thee ladees, and soc fourth, it is tu bee presumed thatt thee aforsaside Jinkins was able tu "toot his Horn," but, it seems hardlee faire tu leave oute thee nams ov thee majoritie ov thee ladees and only menshun a few knowne only tu thee gentleman frum thee "Provinces." "Dymunds," ov the fresh water, was prominent among thee selecte, menshuned bi our friende, let us hoop thatt nexte yearre wee will be abul tu prokure sum dymunds four oure ladees, soc thatt theyre names mai appere in printe. I notised severall ov thee telergraffe thare, who had eggspressed their feellinks in regarde tu the Bawl, who refused tu bi a tickut—but praps tha acceptud a "Complimentree"!

Thee Com-i tees ware farelie representud bi thee fol loing gentulmen. Thee floore committtee was held in checke bi thee distinguist Monsure Tompson; his assistants seemed tu be akwaintud with thee business, Thee "Alderman" from Bobuckun and "Puffy" from N. York. Thee gentlemun from "Sorrelle," and thee secerarie of

thee Deestrict. Thee lighte curly haired youth sportud a Red Rose, (natural) till, hee learned that hee was on thee wrong side, when olde man " Balde Eagle " correctud his mistake, and hee wente on his way rejoicing. Some ware detailed tu du juty ande consikntley did nott appere in their split-aile-coats. Oure Chairman ov Recepshun Com-i-tee was preventud from sharin oure happiness, by resun ov havin lost a near relative. Thare were butt a few of the Recepshun Com-i-tee presente, butt thoase presente purfomud their juty well.

Thee musick was furnisht bi " Wallace "—almost every boy knows " George," and that he will give us goode musick, just soe long as we can pay for it.

Some notabuls were present. Hon. H. O'Riley, accompaned bi his two charming dawters, Mister Mic Alpun, and others unnoan tu thee subscrubur. Kwietness prevailed every where, even in thee " Reception Room " ande wec feel proude in sayin it was the Beste Bawl givun bi thee " New-Yorck Deestrict."

I am invited to attende a Bawl in thee Kwakur citee next munthe; if anything interrestinge terns up I will postay you. Yours Respectivelee,

SAM. DREW, P. O. O. M., N. Y. Deestrict.

Why Indians Respect Telegraphs.

THE Indians know that the telegraph " talks ; " that it is the mysterious servitor of the white man, and they must be aware that it reports their numbers and deeds of blood to military posts hundreds of miles away ; and that its voice is calling for swift punishment upon them ; all this they must know, for the builders and superintendents of the line have always impressed upon the Indians the belief that the telegraph tells everything that is going on. The Indians do not touch the line because they have a superstitious dread of its unknown power. The origin of their mingled reverence and fear of the telegraph is stated to us as follows, by a gentleman who knows the facts :

" When Mr. Creighton was constructing the overland line he met with no serious opposition from the Indians, though it was expected that at any moment they would wantonly cut the poles or tear down the wires. He determined to make a striking appeal to the superstitious element which makes up nine-tenths of the aboriginal character. When the line was completed between Fort Kearney and Laramie, about five hundred miles apart, he contrived upon the same day to have the chief of the Arapahoes present at the Fort Kearney station, and the Chief of the Sioux at Fort Laramie. These tribes were among the most powerful on the plains, and the chiefs well acquainted with each other, and on the best terms of friendship. An exchange of signals between the operators of the two stations showed that each had a chief at his elbow. Mr. Creighton, who was at Fort Kearney, then asked the Arapahoe chief if he would like to talk with his friend of the Sioux at Fort Laramie. The Indian smiled grimly at the superintendent, taking the question as a joke ; finally the superintendent succeeded in convincing the chief that the proposition was a serious one, and that his Sioux ally was at that moment anxiously awaiting to hear from him. Arapahoe, after many doubts and misgivings, put a question Sioux answered ; the conversation once begun, flew fast enough back and forth between these old companions in arms. Both chiefs were awestruck. Like true Indians neither of them asked for an explanation of the wonder, but accepted in good faith the solemn statement of Mr. Creighton and the Fort Laramie operator that the telegraph was the instrument of the Manitou (the ' Great Spirit '), his organ of speech, his voice upon the earth. To wind up the demonstration each was told that the other wished to see him at a point midway between the two forts. The invitation was obeyed as if it had been an order direct from the Manitou. The chiefs started off on horses furnished by the superintendent, and after a journey of two hundred and fifty miles met. Here they compared notes, and found

there was no mistake about the ' pow-wow ' that they held a week before five hundred miles apart. This clinched the impression that Mr. Creighton had sought to make. The marvelous story of the telegraph was soon told among all the tribes, and from that time to this, posts and wires, stations, instruments, batteries and everything pertaining thereunto, but operators, were sacred in their eyes ; even the operators would be respected, it is believed, if they stood on their dignity, with the pole of a battery in each hand. Being but human, they run away ; on their return they always find an Indian's trail in or about the station, but everything undisturbed. It is hoped that in the Indians will not find out the secret of the telegraph. When they do, they will make sad havoc all along the overland route before they can be put down."

A Negro's Idea of the Electric Telegraph.

At the railway depot in Lowell, not long since :

" Look a hea, Jake," said Sambo, his eyes dilating, and his rows of shining teeth protruding like a regiment of pearls, " look a hea, Jake, what you call dem ar ?"

" What ar ?" rejoined Jake.

" Dem ar I is pintin to."

" Dem ar is postes," said Jake.

" What ! " said Sambo scratching his head, " dem ar postes wid de glass ?"

" Yes, de same identical," returned Jake.

" Ah, but you sees them ar horizontal wires."

" Well," observed Jake, " de postes support de wires."

" Gosh ! It takes you nigger," ejaculated Sambo, clapping his sides, and both setting up a loud yah, yah !

" But what's de wire for ?" said Sambo after a pause.

" De wires," replied Jake, completely staggered for a moment, and at a nonplus for a reply to the philosophic curiosity of brother Sambo, but suddenly lighting up with more than nigger fire he said, " De wires is for to keep de postes up."

How to Make Telegraphs Pay.

TO THE EDITOR OF THE TELEGRAPHER:

In the prevalence of rumors of lines to be built in the spring, which has become almost epidemic, it is difficult to know, with any degree of certainty, upon what one can rely, either to the public for relief from the graspings of a monopoly, or to the telegrapher for an adequate compensation for his labor.

That for both of these reasons an opposition line is an absolute necessity, no one will deny. But to be of any practical, lasting benefit to either it must be begun and carried on upon strict business principles.

The W. U. Co., in particular, is continually whining about its tremendous expenses and small earnings in comparison, and the quotations of its stock show that the financial public, at least, regards its whines. But does any one doubt that if it was a judiciously managed concern both the receipts could be increased and the expenditures decreased ? Does any one doubt that if one person or firm, of business qualifications, had the management of the affairs of the W. U., or any other company having the immense advantages of a monopoly that it has, or if its affairs were managed as a business man would manage his business—does any one doubt that it would pay ?

The wise man says : " There is that withholdeth more than is meet, but it tendeth to poverty " ; and it is high time the W. U. Co. and all others learned that dividends cannot be paid out of the clippings of employés' salaries. A generous policy towards employés, with proper guards against abuse by those of no principle or honor, would enlist their sympathy, and the interests of both would be identical. No concern can flourish against the hatred of the true source of its profits ; and no one will deny that to the operators the lords of the lines owe everything. A general strike of the operators for one month would, without any question, bankrupt the whole brood of telegraph millionaires ; and no class of laborers could support and live through a strike with less suffering to themselves and others than the telegraphers, for most of them

are young and unmarried, with no one depending upon them for support. Notwithstanding the affected contempt of the lords for their vassals there is a danger that threatens them of an alarming nature, and wisdom would dictate that an effort be made to avert it.

But how to enlist capital in the upbuilding of an opposition to the present monopoly, with the fate of the various telegraph enterprises staring us in the face, is the serious question for consideration. Capitalists ask what dividends are paid, or likely to be paid, before investing their means, and unless it can be clearly shown that there is money in it, to solicit aid in any new enterprise is useless. People should not be deceived by the lilliputian dividends lately declared by the Mammoth. They are no criterion in judging of what a telegraph line might pay upon a reasonable capital. The capital stock of the W. U. Co. is over forty millions. What an enormous amount must be earned to pay expenses and divide any per centum upon that capital ! But it is not that the earnings are too small, but the capital is too large. There is no property to represent such an amount. All over ten millions is a dead weight. The same territory occupied by the W. U. Co. can be covered with better lines, fully equipped, for one-quarter of its capital.

The fear of being " run " by the present monopoly should not deter an opposition company from starting. Beyond the snarling and grinding of its few remaining teeth no harm can be done. It's too near drowned out with watered stock to make much of a fight. But one straw is now needed to break the camel's back. The offer to the Government of a wire to test the practicability of working the telegraph in connection with the Post-Office Department is a clever dodge, but is really a transparent show of weakness. If it was strong, financially, and strong in the affections of the people, it need have no fear of an honorable competition, either from the Government, which has no right to interfere with the business pursuits of the people, which it is bound to protect rather than compete with, nor from a competing line owned by individuals.

To insure success, then, in any new enterprise, two things must be obtained : the good-will of the people and the good-will of the employés. Now both the dear public and the employés are selfish, and they must not only be treated well, but it must be made for their advantage to reciprocate the good treatment. Any new concern has the unbounded and unprecedented success of the new express company as an incentive, and its progress from inception to maturity as a guide to as certain success.

If the people will take the matter into their own hands, and own the stock themselves, they will see to it that their own line gets all the business. The stock must be spread far and wide among the people, and to get it subscribed for substantially the same course should be pursued as was in the case of the Merchants' Union Express Company.

The people favorable, half the battle is won. Now to enlist the interest of the employé, is not the co-operative plan the best way ? Divide all over a reasonable percentage among them. This plan is working successfully in many establishments employing a great number of men, and is not only just but generous. Just, because it gives a man a profit on his labor which the salary rarely covers ; generous, because the capitalist, appreciating the faithful services of his employé, is willing that he should be rewarded. A reasonable use is due to capital, and the same should not be denied to labor. Say all above ten per centum of the net earnings be divided among the employés *pro rata* upon the salaries received. The employés would see by faithful attention to business, and a careful use of property, and no waste of material, that their dividend was as large as it was possible to make it. Perhaps five per cent of the materials used in the transaction of the business of a telegraph line is wasted. Not deliberately and willfully destroyed, but allowed to waste. Make the employé interested to save instead of allowing

THE TELEGRAPHER.

to waste, and a proportionate increase in dividends will be manifest. He will get all the service possible out of his pens, pencils, and paper; he will work with a little weaker local; he will not object to stay a moment over his time, or commence work a moment before he is due; he will turn out his gas when not needed, and will save, as he can, in a thousand ways, where now, if he doesn't actually waste, he is at least indifferent.

Into such a line, where the treatment was magnanimous and the co-operative feature introduced, the telegrapher would be glad to put more than his labor. How many operators could command, either of their own or of others' means, enough to take stock in an enterprise which he would contribute largely of his energy towards making profitable.

It is the telegrapher's hope and prayer that healthful competition may spring up which will directly benefit him and the public, and to that end all wish the new enterprises good speed; and when the time comes for the service of practical men upon any of them the pick can be taken from the corps of the "Mammoth."

Buffalo, March 1, 1867. *TELEGRAPHICUS.*

WORCESTER, Mass., Feb. 12, 1867.

TO THE EDITOR OF THE TELEGRAPHER:

HAVING recently become a member of the "Telegraphic Union," it is, perhaps, natural that I should regard its sphere of usefulness and prosperity with a considerable degree of anxiety and solicitude. Whenever I read in your columns any correspondence, any editorial comments, any reports of the various Districts, any quotations that are selected with care and discretion—in fact, anything, the tendency of which is to elevate and dignify the standing and condition of our profession, I then, almost unconsciously, congratulate myself that I am a member of this highly-respectable and rapidly-increasing organization. But when I read the most disparaging and uncomplimentary reports of District proceedings, a feeling of regret comes o'er me for my delinquent telegraphic associates. I refer particularly to the continual, never-ending reports of suspensions and expulsions for non-payment of the trivial assessments which are necessary to sustain our organization. Knowing that telegraphers, as a class, are not of a penurious disposition, I have been led to make inquiries as to the real cause of this apparent delinquency on the part of operators to pay their dues; and I am told by one of the oldest members of the order that the fault is not so much on the part of the members as it is owing to the neglect of the District officers, whose duty is to collect these amounts as they become due; to present the bills at the proper time. That claims of six, eight, or ten dollars are allowed to accumulate before the bill is presented, and then the debtor finds it inconvenient to cancel the same. If such be the case, I would suggest that your editorial displeasure and indignation be visited upon the delinquent official as well as upon the partially-offending private in the ranks.

"A word to the wise," etc. *GRAPHO.*

At a fair given by the F. and A. M., was a telegraph office, the blanks of which read as follows:

"All messages taken by this company are received subject to the following conditions:

"No. 1. It is especially agreed by the sender of this dispatch, that in case of its not reaching its original destination, by reason of being run into the *ground*, he forfeits all claim to reimbursement. This is important.

"No. 2. Any party can insure the correct transmission of their message by paying one-half of the original tariff, in addition, and taking a copy of the message to its destination himself. This rule applies more particularly to messages ordering the purchase or sale of gold—or goods of the Fair at the Fair.

"Particular attention is desired to the importance of the following rule:

"We do not 'D. H.' on this line, nor carry freight.

"No. 4. Parties patronizing this Company will please, in all cases, bring their stamps with them, and be particularly careful who they deposit them with—'honesty is the best policy'—and the lady in attendance is authorized to make change.

"TUBAL CANE, Pres't. B. R. O. HIRAM, Sec."

And on the envelopes we find this:

"Open Day and Night—When not closed.

"Messages, a long way from Cork—received independent of the cable—in just one and a quarter seconds. This extraordinary dispatch is consummated with express reference to the wishes and interests of the public so as to give Fenian news, on this side, several days before the event transpires—thus beating the 'Associated Press' just twenty minutes."

On the Death of Oscar Willis.

THE Storm King in triumph swept over the hills,
And scattered pale snowflakes, and hushed the sweet rills.
A world-weary wanderer was nearing his home,
Where fond little hearts wished "Papa, dear, would come."

A light from the window shone forth through the snow,
And drew him still onward, home's comforts to know;
His wife, angel, too, lights her window in heaven,
And beckons him thither to share her blest Haven.

He thinks on his children, also his "mother,"
And "Angie," who waits, expecting her brother;
But, fainting at last, lays him down to his death,
And, murmuring "Georgie," yields up his tired breath.

Oh! could we but catch the harmonious strains
That swept through heaven's arches! and list the refrains
That burst from that soul, as it touched on the strand
Of eternity's shores, and walks hand in hand

With her who on earth he loved better than life
(And ne'er had ceased mourning the loss of) his wife;
A light in the window hath beckoned that soul;
We'll trust that he's reached heaven's pure, perfect goal.

Altho' to our hearts that bleak storm seemed all wrong,
That took a *loved soul* from humanity's throng;
He, doubtless, rejoiced in God's boundless love,
That made it his summons to join Him above.

HUMORS OF THE TELEGRAPH.

"TRAVELS LIKE PISEN."

THE electric telegraph is bound to remain a mystery to the million, and the ludicrous conceptions of its *modus operandi* which some of the most ignorant people have formed are as mirth-provoking as anything out of Rabelais or Smollet. The last illustration of this that has fallen under our eyes is the following story:

"Not long since an old lady entered the Independent Telegraph office, and said she had a message to send to Wheeling. In a few minutes her note was deposited in the dumb waiter, and ascended in a mysterious manner through the ceiling. 'Does that go to Wheeling?' inquired the old lady. 'Yes, ma'am,' answered the clerk. 'I never was there,' continued she; but it hardly seems possible that their town lies in that direction. When will I get an answer, Mr. Telegraph?' 'I can scarcely tell, ma'am; it may be two or three hours.' The old lady went away, and returned exactly in two hours. Just as she entered the door the dumb waiter came down through the ceiling. 'There is the answer, ma'am,' said the clerk. The old lady took the neat yellow envelope in her hands, with a smile of mingled gratification and astonishment. 'Now, that beats all,' exclaimed she. 'Bless my heart; all the way from Wheeling, and the wafer still wet. That's an awkward looking box, but it can travel like pisen.'

FROM Kansas City we get what follows:

"In the days when we were hard up—
But we may be happy yet."

"Many years ago, in the days of the old Missouri River Telegraph, a *genus homo* of the profession—which is Brasspecking—sharing alike the honors of Manager, Chief Electrician, Battery-man, and Messenger of the St Joseph

Office, was suddenly seized with the California gold fever, at that time raging in that section to an alarming extent.

"Thousands were stricken down in the prime of life, and departed for another world, variously equipped—some on horseback, oxback, in wheelbarrows, and afoot. His case was hopeless. His pill-vender advised change of climate. But how to procure that change. Alas! he had no change—not a *buzzard*. He would die. Slowly and sadly his numerous friends came to take a last farewell. One by one they approached his bedside (which, likewise, was his counter), anxious to be recognized, each bore in his hand a memorandum of articles (cloze, vittuls, et cetera) sacrificed to the comforts of their prostrate fellow-man. Vain hope! He saw them not. Mournfully they departed, wringing their hands, tearing their bills, and muttering through their clenched teeth: 'No collateral; no collateral.' Newsboy in the distance responds: 'Nary red.'

"The last persecutor had vanished. Suddenly a new light beamed forth from those once sightless orbs. Our hero sprang to his feet, barred the door, and immediately called a council of one. Minutes of council. Last of month. Report made out. Balance due Co. Ought to remit. Won't. Appropriate. Resign. Go to mines. Writes determinedly:

"ST. JOSEPH, Mo., —.

"MR. —, Supt.:

"DEAR SIR:—I enclose you my report for last month. I have wished for some time to go to California, but I could never save money enough to take me there. As the receipts for last month were larger than they have ever been before I have concluded to use them. If I am successful in the gold mines I will remit you; if not, you will have to put it down as cash gone. Please accept my resignation. Yours very respectfully, J. B.—."

A CERTAIN brass-pounder, who is now pounding away in the sunny South, made the following "cow's husband":

COPY OF MESSAGE:

"HARPER'S FERRY, Va.

"TO —:

"Send one Fosset for ale per express.

(sig.) " —."

Which our Johnny received thusly:

"HARPER'S FERRY, Va.

"TO —:

"Send one Fosset for A. Lee Perex Press.

(sig.) " —."

The additional e in the word Lee he said he thought did not come, so he put it in to make sense.

DURING the war, two Kentuckians, one of whom was a country official, went into the telegraph office at Danville, Ky., and telegraphed to General S. S. Fry, commanding post at Camp Nelson, to know what they should do with a prisoner in their charge. When the answer arrived, one of them, an elderly man, put on his specks, and, looking at the message very attentively, said: "Well, Mr. Operator, there is something wrong about this thing; this is not Speed Fry's handwriting. I know his writing, young man, and you can't fool me." The operator, Mr. K., protested, and endeavored to explain that they did not transmit the handwriting by telegraph, but to no effect.

At last the old gentleman said: "Well, I reckon it's all right; come down and take a drink, and I'll go over and see the general in the morning."

FROM Esquimalt, V. I., under date of Jan. 13, 1867, a correspondent writes:

"ANOTHER TWIN BROTHER TO THE PAIL OF WATER."

"I beg to send you, as a companion to the pail of water account in your October number something of the same class, but on a more magnificent scale.

"A ship arrived in Esquimalt, V. I., with one hundred miles of submarine cable for the Russian-American Extension Line; the cable was coiled in a wooden tank containing water, so as to keep the gutta-percha moist, etc.

The tank was perfectly water-tight (consequently insulated like a pail of water). The officers of the Western Union Company had it tested before it left the ship, and in the following manner: One end to the earth, the other to relay magnet, battery, etc. They had continuity (as a matter of course they would have), and were pleased to term it the most perfect cable they had ever tested. It was reported O K accordingly, and landed. I need not, I presume, call your attention to the absurdity of such testing. If there was fault they would not know it; but, on the contrary, it would have a tendency to increase conductivity. Verily, little knowledge is dangerous, and electrical cable testing is in a crude state on the Pacific coast."

THESE two come from Washington :

"The following occurrence came under my observation while working in the Drummond Town (Va.) Office:

"I was patiently waiting one day for customers, who never rushed in more than one together, and had about given up doing much 'biz.' that day, when some one announced himself by a faint rap at the door. I cried 'come in,' in as savage a tone as possible, and the door was carefully opened by an individual who did not have the appearance of having traveled very extensively. He edged himself in cautiously, all the time keeping his eyes on the instruments, fearing, I suppose, they might strike him, and took his position in the center of the room. After seeing that he was not hurt, he commenced fumbling about in his pocket-book, and at length produced a small bit of paper, which he said he would like to send to Baltimore, and, if I had no objections, he would like to see me start it. After raising 'Wi,' I gave him notice that his message was going. While sending it his eyes were constantly roving about—first up to the top of the window, where the wires come in, then under the table, then to the instruments, but never losing sight of his bit of paper. After getting 'O K,' I informed him that his message had gone. With a look of astonishment, he exclaimed: 'Why, the paper ha'n't gone.' For a while he seemed very doubtful, but concluded to take my word for it, and departed, perhaps, a better, but not a wiser man."

ANY one who has ever been in Pittsburg during a thaw after several weeks of cold weather, when the vast accumulation of soot and dirt becomes animated, will appreciate the following:

"The operator at Pittsburg, a few days since, was asked the state of the weather. He replied that overhead it was warm and pleasant, but that under foot it was perfectly horrible.

"His interrogator then asked: 'Why don't you walk on your head?'"

THE following little bull. made on the O. C. R. R., a short time ago, goes to show that operators of experience are sometimes liable to make mistakes as well as "plugs": "From 'C.' to W. C. L. 'Rn':

"Have section men put the hoop-iron on the platform in warehouse. (sig.) H. F. S."

The following answer to the above will show how it was received:

"From 'Rn.' to H. F. S 'C':

"There is 'no pop' corn on platform.

(sig.) "W. C. S."

DISTRICT PROCEEDINGS.

CHICAGO DISTRICT.—Regular meeting, Feb. 6. Minutes of last meeting read and approved.

Treasurer's report shows \$25.86 in treasury.

Messrs. C. B. Smith and H. C. Sprague, having left the telegraph business, were granted an honorable withdrawal.

An application was received from H. C. Maynard to withdraw from the Union. As his reason was not considered sufficient to grant an honorable withdrawal, the application was returned.

The following persons were expelled for non-payment of dues: C. H. Seaver, T. M. Fish, H. C. Westby, H. C. Van Horn, L. C. Johnson, C. D. Sprague, J. H. Briggs, A. T. McElheney, Geo. H. Cook, J. H. Parsons, W. T. Lindley, J. G. Conver, H. C. Depue, G. Skinner, S. J. Heath, W. H. Wallace, J. O. Byrns, G. H. Rice, J. C. Bush, T. L. A. Valiquet.

Mr. York offered the following preamble and resolutions, which were unanimously adopted:

"Forasmuch as it has pleased Almighty God to remove from the associations of earth our friend and brother, Wilber F. Allen, by whose death we are again brought to consider the true destiny of all, it is

"Resolved, That this tribute be made a testimonial to the excellent qualities of his heart and disposition, and the invariable friendliness of his manner, so happy in consonance with the foundation principles upon which our Union rests. And further

"Resolved, That herein be set forth our unsigned regard for the deceased in life, our deep sense of loss in his death, and an expression of the hope that he gained a victory over the grave toward which his prayers were bent at his latter end."

And it is further

"Resolved, That a copy of this memorial be given his widow and family, who receive our warmest sympathy in their bereavement."

CORRY DISTRICT.—Regular meeting, Feb. 6. Reading of proceedings of previous meeting postponed.

The Director offered a few brief remarks in relation to the condition of the District.

A report from the District Treasurer was then called for, but the Treasurer not being ready to make a report, after considerable discussion, was excused.

On motion, it was resolved that the Executive Committee proceed to impose the requisite fine of fifty cents on resident members at Corry, and ten cents on members who can work on one circuit, for non-attendance at regular meetings. After much discussion the motion was tabled for further consideration.

On motion, it was resolved that a donation be made to relieve the wants of the unfortunate and bereft family of the late Oscar Willis, of New-York. Deceased lost his life in a severe snow-storm in January, while going from his office to his home. It was then moved that a subscription paper be circulated in the District for that purpose. Carried. On motion, Mr. S. A. Arthur, of Jamestown, N. Y., was made special treasurer for the occasion.

On motion, the case of delinquents was taken up, and action had

Mr. T. I. Logan, late of Jamestown, N. Y., now Upper Sandusky, Ohio, was suspended for non payment of dues.

On motion, rules were suspended, and Mr. F. D. Squires, of Williamsport, Pa., was elected a member.

Adjourned.

NEW-YORK DISTRICT.—Regular meeting, February 5. Minutes of the previous meeting read. (Upon motion of Mr. Scully, the names of H. T. Thurban and O. W. Willis were stricken from that part of the minutes relating to the expulsion of delinquent members. The minutes were then approved.)

The Treasurer's report was then read and accepted.

The same officer handed in the names of six delinquent members for expulsion.

Upon motion, the case of each of the above delinquents was taken up singly, and all were expelled unanimously from the Union for the non-payment of dues.

The resignations of W. H. Clark and W. H. Allen were received and accepted when they return their certificates to the Director.

The Committee on Resolutions, appointed at the last meeting, presented the following:

"To the Director and Members of the New-York District, N. T. U.:

"Your Committee to draft resolutions for the welfare of the District respectfully report as follows:

"Resolved, That compliance with the requirements of the Constitution and By-Laws is essential to the existence of the District.

"Resolved, That presence at the meetings and payment of dues are equally necessary for the prosperity of the District.

"Resolved, That delinquency in the payment of dues will not be tolerated.

"Resolved, That the obligation of the District to pay the standing account of the Union is unquestionable.

"Resolved, That the District debt in excess of the sum in the District treasury, at the end of the current quarter, be assessed proportionately on the members of the District, unless previously canceled."

Upon motion, each resolution was taken up and separately considered. They were all adopted unanimously.

Some of the members who were intimate with the late O. W. Willis, a member of this District, deceased in January, made short speeches eulogizing his character as a man and a telegrapher, when Mr. Smith moved that a committee be appointed to draft resolutions expressing the sympathy of this District with the family of the deceased. Carried.

Messrs. Smith, Clark, Redding, Scully, and Lillias were appointed such committee.

Mr. Redding moved that a committee be appointed by the Chair with power to make arrangements for any entertainment to be given for the benefit of the District during the coming year. Upon a division it was carried by a vote of 7 to 4.

Upon motion, Mr. Smith was appointed a committee of one to amend Clause 1, Article 7, of District By-Laws. Adjourned.

ST. JOSEPH DISTRICT.—Regular meeting, held Sunday, Feb. 10. Minutes of last meeting approved.

District Director informed the members that he had been notified by telegraph of Mr. Salmon's having remitted all back dues. Case referred to Executive Committee.

District Treasurer made report as follows: Amount of dues received and remitted to Treasurer for quarter ending Dec. 31, \$27. Only one member in arrears for three months ending Dec. 31.

The following, offered by Mr. Woodring, was adopted:

"Whereas, Mr. Julius F. Hruby, a brother operator, and a former member of this District, having abandoned the 'key' for some time, and being about to commence the publication of a weekly journal in the city of St. Joseph; therefore

"Resolved, That we, the members of this District, although sorry to lose him as an operator, welcome him as an editor, and tender him our best wishes for the success of his paper. Also,

"Resolved, That a copy of this resolution be furnished Mr. Hruby by the Secretary."

Pending motion to adjourn, Mr. McDill read the following sentiment from a lady reader of THE TELEGRAPHER:

"He who soweth the broad Fields of the ocean with the seeds of wisdom, may his harvest be broad Fields of the earth to his Heart's Content (Cyrus W. Field)."

Adjourned.

WASHINGTON DISTRICT.—Regular meeting, Feb. 8.

After the delivery of a very interesting lecture by Prof. Henry, called to order at 10 P. M.

Report of Committee on Revised By-Laws received, and laid over for one month.

Mr. T. H. Sherman, in feeling terms, alluded to the death of Oscar Willis, and moved the appointment of a committee of two to draft suitable resolutions. The Director appointed Messrs. T. H. Sherman and A. B. Talcott as such committee, who reported the following:

"Whereas, This District has received with profound sorrow and regret the melancholy and sudden intelligence of the fearful and untimely death of Oscar Willis, a member of the New-York District,

"Resolved, That we hereby tender to the relatives of our deceased friend and brother operator our heartfelt sympathies and sincere condolence in their great affliction and bereavement.

"Resolved, That the Secretary of this meeting forward copies of the above resolutions to his relatives, and also to the New-York District."

Meeting adjourned at 11 P. M.

ST. LOUIS DISTRICT.—Regular meeting, Jan. 6. No quorum present.

Regular meeting, Feb. 3. No quorum present, and meeting adjourned to the 10th.

Adjourned meeting called to order, Feb. 10. Reading of the minutes of previous meeting dispensed with.

The District Treasurer presented his report of members in arrears, and of the local fund of the District for the quarter ending Dec. 31, 1868, which were accepted. The reports show a balance of one hundred and thirty-five dollars due the District and National Union on Jan. 1, 1867.

On motion, J. R. Waite, C. M. Gregg, and C. F. Loomis were expelled for non-payment of dues.

On motion, all fines for non-attendance at meetings to date were remitted.

The committee appointed to superintend the publication of District By-Laws reported that they had procured one hundred and fifty copies of the same, which they presented with their report. Report was accepted, and committee discharged. Mr. M. D. Crain was appointed a committee to distribute the By-Laws among the members of this District.

The time of holding the regular meetings of this District was changed from the first Sunday in each month to the first Sunday after the first Monday in each month.

Several communications from other Districts, giving the names of members expelled therefrom since their organization, were read, and the Secretary was instructed to prepare an alphabetical list of them for future reference.

The resignation of E. L. Parmelee was accepted, to date from Jan. 1, 1867. Adjourned.



FRIDAY, MARCH 1, 1867.

NOT A NEW IDEA.

In another column our readers will find a communication which, although not a new idea, will meet the views of the many members of our profession who peruse the columns of THE TELEGRAPHER.

This subject has been talked over many times when two or more have come together to exchange their views upon topics of interest to our fraternity. The idea has been carried out in practice by persons in their private business and by firms in all the large cities, but never to but a very limited extent by any telegraph company. We believe, and are only aware of one telegraph company, and that the present Western Union, having given any of their employés an interest in the business beyond their daily pittance. Some of the present leading most efficient officers of this company were, not many years ago, operators like many of you at the key, and were for some good reason taken from the instrument to be placed in positions of honor and trust, and given or assisted to an interest in the profits of the company. This interest has gradually grown until it has become a power which now helps to guide this ponderous corporation in its struggle against all pestiferous opposition.

Few men have the faith and stamina to hew their way alone and unaided through the world. Living upon a fair salary is apt to be enervating to the progressive energies of our growing youth—for it takes experience to realize that few persons ever get rich or progress much off of a stated salary. The demand or expenses nearly always equals the supply, or, in other words, the knowledge or faith in the supply is such that the demand is allowed without effort to equal, and many times to exceed, the supply, for how very often do we see members of the fraternity using the wrong end of their salary. When we see a telegrapher who does not draw his salary until the end of the month, we look at him almost with astonishment, and seem to regard him as a *lunus naturae*.

Fully half, if not more, of our profession are faithful, honest workers, with the interests of the company for which they labor at stake; these faithful persons have never had, generally speaking, a sufficient incentive to increase the efforts or even a proper compensation for the efforts which they make.

Our work is generally considered of the treadmill or horse-power order. We are always climbing but gain no elevation beyond the first rise, and our best efforts are exhausted in climbing the delusive and ever-retreating foot-plates upon which our hoofs, figuratively speaking, constantly tread.

Now, upon the other hand, give us some illusive hope for financial progress, and you will see changed men. New life will quickly be infused into us. A more healthy blood will course through our veins, energy will be in our every movement, and economy will be a new thing for us to practice. Supplies of all kinds will have a greater value in our eyes, and less of them will be wasted, and those which we use daily will last twice as long. There will be a pleasure in doing the work which now seems akin to drudgery. Promptness, accuracy, and reliability will to us have a new meaning, and will, perhaps, for the first time in the life of a telegrapher be realized in its true sense.

At present, the expenses of nearly all telegraph com-

panies are in disproportion to their receipts. In some instances this arises from fancy salaries being paid to unnecessary officials, or too much paid to necessary officials; in other cases too expensive outfits and general expenses, and again in others in unnecessary extensions and improvements. Now this would all be changed if the employés had an interest in the business beyond that of their salaries.

Ten per cent is generally conceded to be a fair or good return for an investment of money—many of us do not grumble if we get seven; but where a stock company is concerned, ten per cent at least is looked for.

Suppose, now, the existing corporations should adopt the policy of dividing among the employés of each all profits over and above ten per cent. Does any one doubt that economy would be the ruling passion, and a struggle be made to increase the receipts? Would not new hopes and desires spring up in the breasts of those who do the work for others' profit?

It may be said with some propriety that the employers' interest ought to be the interest of the employés. This may be; but when a person is paid a stipulated sum for a specified work, he is not apt, nor has he any inducement, to do more than he gets paid for, unless he sees some inducement for some unusual labor or energy displayed, whereby, if a goal to be reached is placed in sight, the most of us will strive to reach it. Now this may be said to be a selfish view, and perhaps it is, for we shall not attempt to deny it. If all business was conducted on the principle of disinterested benevolence, we fear t at few of us would ever get rich. To care for one's family is the first and great incentive of our existence. After we care for ourselves, then we are happy to care for others. It is a point yet to be decided, whether the care of your family first is selfishness? We are inclined to the opinion, that if it is, we are pardonable for it. After our household has been provided for, then are we ready and glad to give our mite to those who need and deserve it.

We shall look with some interest to see which corporation of those now existing or about to exist will take the initiative in this forward step to a sure prosperity.

We speak for the brotherhood at large.

THE TYES of the Western Union Company held a protracted meeting in this city last week, lasting from the 20th to the 22d ult., which resulted, we are informed, in the decision which we foreshadowed several months since—to abandon the work upon the Russian Extension Line. Bad management, we learn, and the success of the Atlantic cable, have brought about this action of the management of this stupendous work.

This last is the third step, about which we have before spoken. The first being that of dividing the great expense of this enterprise with the stockholders of the Western Union Company, by issuing bonds of this Company for Russian Extension stock; the second was the resignation of the Engineer-in-chief and others so engaged, and the last the final abandonment of the enterprise.

We would like to inquire if there was any warrant for the issuance of these bonds, whereby the stockholders of the Western Union are compelled against their will to accept the gigantic expense of the huge failure? Mr. Collins made money, and the directors of the enterprise have saved themselves a great loss, but what do the stockholders of the Western Union Company gain?

A SPECIAL telegram to *The World* from Washington, Feb. 22d, says: "The House Committee of Post-Offices to-day decided to report adversely on the Government Telegraph Bill. Serious charges of corruption in this connection are made against the Western Union Telegraph Company and an officer of the House who is one of its stockholders. Nearly all the members have free passes over t at line."

Is MacPherson the stockholder alluded to?

TELEGRAPHIC MISCELLANEA.

SPECIAL NOTICE.—Any persons who, having remitted us, and failing to receive their paper, will please send us some proof or evidence of the remittance having been properly made, and we will send them the paper for the time intended to be subscribed for. Some one has been stealing our remittances.

We are in receipt of and return thanks for complimentary tickets to the ball of the Philadelphia District, which takes place at the Musical Fund Hall, in the Quaker city, on the 12th proximo. Our engagements will prevent our attendance, but we hope our brethren of the City of Brotherly Love will have a gay and jolly time.

THE Bishop Gutta-Percha Company won a victory recently in Congress over Geo. B. Simpson, who had applied for relief on the assumption that he was the original inventor of telegraph cables by gutta-percha. The battle has been going on since 1863. We shall soon give a history of this very interesting and important case.

THE International Telegraph Co. opened their line from Boston to Bath, Me., on the 19th ult. Mr. Jas. G. Smith is Superintendent thereof.

BALTIMORE, Feb. 18, 1867.
I desire the address of R. A. Farr, M. B. Graham, G. J. Lawrence, and Chas. J. Thomas.

P. A. STIDHAM, District Director.

CHANGES, ETC.—Any of our readers making changes will confer a favor upon their friends and ourself by giving us written information of the same. It cannot be expected that we know all the changes taking place, nor right to suppose we can remember them without some reminder. All communications to this paper are treated confidentially.

We ought to have announced two or three months ago that Mr. Thos. T. Dennis, who has for several years been in the Gold Room Office of the U. S. and W. U. Co.'s, in this city, has taken a position with the Merchants' Union Express Co.

Park Spring has gone to Commercial College Telegraphy.

Mr. F. Robinson has taken the Great Barrington (Mass.) Office, vice Miss Pierce, deceased.

It may be seen by Tillotson's great, big, huge advertisement, on the eleventh page of this issue, that he has given up the agency of the Brooks Insulator and taken that of the New-Windsor Glass Co.

C. H. McReynolds resigned in the Chicago Office to go New-Orleans. C. L. Baldwin has accepted place vacated by McReynolds.

F. P. Brown, late of Insulated Company's Office, has, on account of the selling out of the U. S. & E. Press Association been discharged, and is now rusticating at New-Canaan, Ct.

Roscoe Sprague has been transferred from Main Office to Brokers' Office, Old State House.

Thomas Roche has been appointed manager of the Broker's Office, Old State House, vice Upham, resigned.

Joseph Twichell has been promoted to Manager of the W. U. Company's Delivery Department, vice Lotta, resigned.

Fred. A. Marriner and Sam Moore, two old and widely-known telegraphers, have both left the service of the telegraph company and engaged in other pursuits. The former has entered upon the duties of shipping clerk for the firm of Potter, Paris & Co., Foundrymen, of Troy. The latter accepts a similar position with Charles Eddy & Co., Foundrymen, of Troy.

Wm. E. Everett, Esq., who will be remembered as Chief Engineer of the Niagara during the Atlantic cable expedition of 1858, and whose mechanical skill and experience were of great service to the enterprise, sailed for England on February 16th, in the steamer City of Baltimore. He goes out to superintend the manufacture of the cable to be laid by the International Ocean Telegraph Company, to connect Cuba with the United States.

PATENT CLAIMS.—61,325.—TELEGRAPHIC CABLE.—A. J. B. De Morat, Philadelphia, Pa.:

I claim the construction of a telegraphic cable by means of insulated tubes or continuous cylinder or cylinders formed of helically-wound strips in such manner as to preserve uninterrupted linear conduction in case of stretching, as herein set forth, or any other substantially the same and which will produce these intended effects.

61,390.—COMPOUND FOR TELEGRAPH INSULATORS, AND FOR OTHER PURPOSES.—John F. Boynton, Syracuse, N. Y.:

I claim, 1st, As a composition for an electric insulator, a combination of hydro-carbons with silicic acid and silicate of alumina.

2d. The combination of sulphur with the silicate of alumina and silicic acid, for the purpose set forth.

3d. The combination of sulphur, hydro-carbons, silicic acid, and silicate of alumina for the purpose set forth.

4th. Any combination of silicates with sulphur or hydro-carbons, so arranged or combined that when formed into an electric insulator it will be black or dark-colored, for the purpose herein specified.

5th. Saturating earthen-ware, brick-tiles, drain-pipe, porous stone, wood, cast-iron, and other hard porous substances with the compounds herein described, after subjecting said substances to a sufficient degree of heat to expel the air and moisture therefrom, substantially as and for the purposes described.

61,540.—APPARATUS FOR INSTRUCTION IN TELEGRAPHING.—Edward A. Hill, Chicago, Ill.:

I claim, 1st, The combination of two batteries, C C, with a series of wires, x, y, z, and the terminal points, a, b, c, and the movable arms, D, D, connected with a wire, q, or its equivalent, arranged and operating substantially as herein specified and shown.

2d. The employment of a series of escape-wires, r, s, t, u, and their terminal arms, M, N, O, P, in combination with a plate or plates, L, connected with a ground wire, Q, arranged and operating substantially as herein shown and described.

3d. The arrangement of the two terminal batteries, C, C, with the circuit through the same, as to be placed at the center of the line upon each side of the instructor's desk, substantially as and for the purpose as shown and set forth.

As evidence of the progressive spirit and thorough knowledge of the business, we can state the Executive Committee of the Western Union Company have adopted the bone Rubber Insulator.

NEW-YORK STATE LEGISLATURE.—In the Assembly, February 10th, Mr. Littlejohn offered the following:

"Resolved (if the Senate concur), That in the opinion of this Legislature it will be of great benefit to the Government, commerce, and the general public to have a telegraphic communication from the United States to Europe, and that the members of Congress from this State be requested to vote for the bill now before Congress for submarine telegraphic communication with Europe via the Azore Islands and Portugal."

Laid on table.

A TITUSVILLE correspondent writing says:

"I also send you a list of words from the word 'Telegraph' in answer to the challenge in your January issue. I have one hundred and seventy words, beating your correspondent eleven. I think I take the 'rag off of the bush,' as the words I send you are all to be found in 'Webster,' with one or two exceptions, and I have used proper names, such as 'Teal' (a kind of duck), Lear (Shakespeare's king), and Pelea (a country given name)."

"You might tell your correspondent there is now no necessity of falling back on his list of insignificant one hundred and fifty-nine words, as we are a *little* ahead of that."

A LITTLE affair in the way of a bet took place in Chicago a few days since between the managers of Ch. office and Sj. office; the former contended that a cross on the Milwaukee lines was north of Evanston, the latter that it was within the city limits. Consequently each backed his opinion with a ten-dollar greenback. The matter was settled, and Sj. carried off the laurels.

THE Western Union Telegraph Company gave notice to the press that on and after the 1st of February all persons connected with the press must pay half prices for dispatches sent by them of a private nature. Such dispatches have heretofore been sent free, on account of the very large patronage given by the press to this line. The Rochester *Union* asks if this rule applies to other desks beside the press?

THE TELEGRAPH.—Its batteries, though always charged, are unlike those of war. They speak not in tones of thunder, but silently perform their work with wonderful effect. We claim Franklin as its discoverer, for he was the first to attract from the clouds the lightning of his "line," meanwhile holding the "key" in his hand.

AMONG the arrests made by the Metropolitan police during 1866 were twenty-two telegraph operators. Who were they?

A PAPER, in an account of the arrest of some runaways taken on the strength of a telegram sent in advance of them, heads the article "Struck by Lightning."

The Solar Spots - Terrestrial Magnetism.

(Concluded.)

THE year 1859 may be selected as one in which the earth was visited by frequent and intense disturbances of its magnetic force, and also in which the Aurora appeared with unusual splendor, and over an unusually large portion of its surface. That year was also remarkable for the number and size of solar spots; and we derive from Herschell an occurrence which may be considered "an epoch, if not in the sun's history, at least in our knowledge of it;" and it may be added, in our knowledge of its magnetic influence upon our planet. On the first day of September in that year, two observers in England, far apart and unknown to each other, were viewing the spots with powerful telescopes. Suddenly, at the same moment of time, both saw a strikingly luminous appearance, a cloud of light, far brighter than the general surface of the sun, break out in the immediate neighborhood of one of the spots, and sweep across and beside it. It occupied about five minutes in its passage, and during that time traveled over a space on the sun's surface which could not be estimated at less than 35,000 miles. A magnetic storm was in progress at the time. From the 28th of August to the 4th day of September many indications showed the earth to have been in a perfect convulsion of electromagnetism. When one of the observers I have mentioned had made a record of his observation, he thought of sending to Kew, where there are self-registering magnetic instruments always at work, and recording by photography at every instant the positions of three magnetic needles differently arranged. On examining the record for that day it was found that at that very instant of time, "as if the influence had arrived with the light," all the needles had made a sudden deviation from their former position. My readers will remember the beautiful and brilliant Auroras which appeared at the time I have given as the date of the above occurrence, and the accounts published from nearly all parts of the world, in many of which such an exhibition had never before been witnessed. These Auroras were accompanied with unusually great magnetic disturbances.

Mr. Prescott has given in his work on the telegraph, an interesting account of the operations of the disturbing force upon the lines of telegraph in different parts of our country. It was then that the remarkable feat was performed for the first time of transmitting messages by means of the auroral current alone. Before that time, in the year 1852, during a remarkable Aurora, the wires were rendered nearly useless for some hours, and a flame of fire was seen to follow the pen of the Bain apparatus in the office at Boston. At both these periods the current was observed to change in its direction at nearly equal intervals, alternating from the positive to the negative in from one-half minute to a minute; and the changes were gradual in their operation, the positive commencing and increasing gradually to a maximum, and then as gradually subsiding, to be followed in like manner by a negative current. It is difficult to conceive how a current bearing all the characteristics of electricity eliminated by chemical action, can thus be collected from the atmosphere through which the wire passes.

The auroral current is of low tension, but of enormous quantitative effects, produces magnetism, decomposes chemical substances, deflects the needle, and is of sufficiently long continuance to be used in the transmission of messages. Humboldt asserts in "Cosmos," that "the condition of electricity in the atmosphere is not found to be changed during the most intense Aurora." This would seem to be contradicted by what is now known of its effects upon the wires. At the time "Cosmos" was written, however, the conditions afforded by these long conductors for ascertaining the electrical state of the atmosphere did not exist.

Is it certainly ascertained that the extraneous currents are obtained from the atmosphere? The Aurora, De La Rive concludes, is "a phenomena having its seat in the atmosphere;" an effect, in other words, produced by the passage of electricity between the earth and the upper regions of the air. Do the wires assist in the attainment of electrical equilibrium? Or may we not look to the earth for the source of these currents, having their entrances and their exits at the "earth" wires which form the termini of the lines? Many similar questions will present themselves for solution, and telegraphers should prepare themselves for an intelligent and careful examination of the characteristics of this unbidden visitor at its next appearance.

By reference to the years mentioned in a former part of this paper, it will be seen that the present, 1867, is nearly the central period of the sun's freedom from spots, and, accordingly, I find, upon examination with an excellent instrument, that the disc is entirely spotless. The magnetic phenomena, whose connection with their appearance we have shown, seem to have been for some time correspondingly rare.

Telegraphers and others will await with interest the further development of facts bearing upon this singular subject.

D. W. E.

Mystic Bridge, Conn., Jan., 1857.

A QUAKER City correspondent writes this one:

"Having always maintained that the least said by operators of either system about 'bulls' the better for them, I have refrained from adding anything to your column of 'Humors of the Telegraph.' The following joke, however, is so mirth-provoking it deserves a place among 'bulls' of the public. It has been going the rounds of the papers as a scientific item, and although it is reported as having emanated from Russia, it is evidently via the Atlantic cable. Hibernia will certainly claim, as she is entitled to, the credit of such innocent stories:

"Letters from Russia state that communications with a great many telegraph stations were interrupted in consequence of the intense cold. The 'wires were frozen,' and covered everywhere with a coating of ice three inches thick. Will not this phenomenon give the Atlantic cable the monopoly of telegrams during the winter months?"

DURING the brightest days of the United States Telegraph Company the operator at Albion, N. Y., received a furlough to rusticate. Operators being scarce, a college graduate, competent and willing, was expressed on to fill the operator's place. Soon Rochester sends the following, which was received during the afternoon, much to the relief of Mr. B—, the sender:

ROCHESTER.

To A. B. H—, Albion:

"Come to Rochester and take the oath of office.

(sig.) "R. S. H."

RECEIVED:

ROCHESTER.

To A. H—:

"Come to Rochester and take the oaths of office.

(sig.) "R. S. H."

Imagine Mr. B.'s pheelinks when a day or so after a stranger presented the bull, asking: "How are you, Oats?"

RECEIVED:

ROCHESTER.

Married.

In Brooklyn, on Feb. 28th, by the Rev. John Manning, of Bay Ridge, L. I., Mr. L. H. Smith to Miss Martha, youngest daughter of the late Winant L. Bennett, of Bay Ridge, both of Brooklyn. (No cards.)

RECEIVED:

ROCHESTER.

DIED.

COTTON.—In Louisville, Thursday, February 14th, of consumption, Joseph S. Cotton, aged 29 years, formerly of Newcastle, Pa., and for many years an operator in the office of the Western Union Telegraph Company in Louisville.

PREAMBLE

TO THE

Constitution of the National Telegraphic Union.

We, Telegraphers, uniting ourselves for the purposes of mutual protection in adversity, upholding and elevating the character and standing of our profession, promoting and maintaining between ourselves and our employers just, equitable, and harmonious relations, and advancing the general interests of the fraternity; recognizing the principle that the interests of the employer and employee are identical, and firmly believing that a union among ourselves, established upon just principles, will result in manifold benefits, not only to us, but also to those who employ us, and be the means of enlarging and establishing, upon a better foundation, the peculiar business to which we look for our support, with the hope that our endeavors will merit the commendation of all good men, and draw down upon our undertaking the benign influence of our Creator, do hereby ordain and promulgate for our organization and future government, the following Constitution.

EXTRACTS

FROM THE CONSTITUTION AND BY-LAWS.

ARTICLE II.

SECTION I.

8. No person shall be a delegate who shall not have attained the age of twenty-one years.

4. The number of delegates shall not exceed one for the first fifty members, and one extra delegate when the exact proportion shall be twenty-five members in excess; but each District comprising *not less than fifteen* members shall be entitled to one delegate.

5. At the regular meeting in July the District shall nominate candidates for District officers and delegates.

8. No member who is six months in arrears for dues shall be entitled to vote, or be eligible to any office, and shall not be enumerated in the basis of representation.

10. When vacancies occur in the Convention, the Director of the District in which they occur shall order an election to fill such vacancies, which election shall be conducted as provided in Clauses 5 and 6 of this Article. When this is impracticable, the Director and his Council may appoint suitable persons to fill the vacancies.

11. District officers and delegates shall assume the duties of their several offices at the first regular meeting after their election.

12. The expenses of the delegates shall be borne by the Union; the bills for the same to pass through the course provided by Clause 8, Sec. 1, Art. IV., of the Constitution.

SECTION II.

1. The Convention shall assemble annually on the second Wednesday in September.

ARTICLE III.

SECTION II.

1. The general officers shall constitute an Executive Committee, whose duty it shall be to attend to the proper execution of this Constitution; decide all matters in dispute concerning the interpretation of the Constitution, or between the different subordinate organizations; and attend to such other matters as the interests of the Union may require.

ARTICLE IV.

SECTION I.

6. It shall be the duty of the District Director to call District meetings; preside over all such meetings; declare the result of all District elections; decide all local questions referred to his decision; keep a record of all members admitted to the Union within his District; represent the District in all cases affecting the National Organization, except when special delegates are chosen for that purpose; attend to the distribution throughout his District of all papers, documents, or publications issued by the Union or District; and *superintend at all times the affairs of his District*. He shall appoint a council or committee of two to assist him in the discharge of his duties, and to consult with in cases requiring his decision or arbitration.

7. It shall be the duty of the District Secretary to keep a record of all proceedings at every meeting of the District, and to issue all notices and summons. He shall keep a list of all officers and members of the District. He shall be the custodian of, and shall be held responsible for, all the documents, books, papers, and supplies of the District. He shall be required to notify all members of their election to fill any District office, and any person of his election to membership.

He shall also perform the duties imposed upon him by the District By-Laws and the District.

8. It shall be the duty of the District Treasurer to collect all money due the Union from his District, and forward the same, quarterly, with a report to the Treasurer of the Union.

Before entering upon the duties of his office, the District Treasurer shall give an obligation or bond to the

Union, with at least two responsible securities, each in the sum of fifty dollars, and himself in a like amount.

He shall report monthly to the District the names of all members in arrears for dues, together with the amount of their indebtedness.

He shall keep a book in which shall be recorded the name of each member of the District in such manner as to show when he was admitted, paid the full amount of his dues, was suspended or expelled, withdrew or died, which book shall be the register of the District. He shall also perform the duties imposed upon him by the District By-Laws and by the District.

ARTICLE V.

SECTION I.

1. The President may submit any question that he may deem necessary to the members of the Convention separately, by telegraph or in writing, and upon the receipt of their votes thereon, declare the decision of the Convention, and notify the Recording Secretary accordingly; and such action of the Convention shall be as binding upon the Union as any adopted at a meeting of the Convention.

ARTICLE VI.

SECTION I.

1. No person shall be admitted to membership in this Union who has not attained to the age of eighteen years, who does not bear a good moral character, or who shall be so disabled by bodily infirmity as to be unable to perform the ordinary duties of his position, or who is not a operator of at least three years' experience.

2. Application for membership shall be made to the Director of the District in which the applicant resides.

3. Upon the receipt of such application, the Director shall refer the same to a committee of three, who shall institute a rigid investigation as to the qualifications and character of the applicant, and report at the next regular meeting of the District, or as soon thereafter as practicable; and, if the report be favorable, he shall be balloted for, and, two-thirds of all the members present voting in his favor, he shall be declared duly elected.

4. No application for membership shall be considered unless accompanied by the admission fee. In case the applicant be rejected the fee shall be returned to him.

SECTION II.

1. Operators of experience, engaged in other business to the exclusion of telegraphy, may be admitted as honorary members of the Union, on the payment to the District Treasurer of the sum of ten dollars, as an initiatory fee. They shall not be subject to assessments of any description, and shall have no claims on the Treasury of the Union. They shall be admitted in the same manner as other members, and shall have the privilege of attending District meetings, and may speak upon any subject that may come before such meetings, but they shall not be entitled to vote.

ARTICLE VII.

SECTION I.

1. If any member shall refuse or neglect to pay his indebtedness to the Union or District for a period of six months, he shall be suspended, and if he still refuse or neglect, after nine months, he shall be expelled.

2. Any person expelled from the Union by failure to pay his dues for a period of nine months may be readmitted by the payment of all sums due at the time of expulsion, together with the amount which would have accrued up to the time of readmission, had he continued a member.

3. In all cases where a member has been notified by the District Treasurer that he is in arrears, it shall be considered that he has received sufficient notice.

SECTION II.

1. All charges against members of the Union must be made in writing to the District Director, who shall appoint a committee to investigate the matter.

2. The committee shall, after charges have been submitted to them, notify the accused that charges are pending, and he shall have one month from the date of such notice to rebut such charges, after which time the District may dispose of the case as two-thirds of the members present may determine.

3. Any member who may be suspended or expelled by a District, may, within one month from the date of suspension or expulsion, appeal to the Executive Committee, whose decision shall be final.

4. The District Director shall notify all other Districts of the suspension or expulsion of members, with the cause therefor.

ARTICLE VIII.

SECTION I.

1. When any member shall become incapacitated for the performance of his duties, by sickness, or accident, that does not proceed from immoral conduct, he shall be entitled to receive the sum of six dollars per week, after the first week, until his malady or accident terminate in restoration or death.

2. Any member desiring such assistance shall make application to his Director, who, with his Council, shall investigate and decide upon the application, and, if approved, report the same to the President, who shall, if he entertain the application, order its immediate payment.

ARTICLE IX.

SECTION I.

1. Five or more operators, qualified for membership, may constitute a District, and determine the location of its headquarters.

2. All members of the Union must belong to the District of which the headquarters are in, or nearest to the place where they are employed.

ARTICLE X.

SECTION I.

1. The fee for admission into this Union shall be five dollars, which will entitle the member to a certificate of membership, to be issued by the District Director.

2. In addition to the initiation fee, each member shall pay into the treasury the sum of six dollars per year, to be collected by the District Treasurer monthly or quarterly, in advance, as the District may deem advisable.

3. When a member changes his place of residence beyond the District in which he is enrolled, he shall be entitled to a Certificate of Transfer upon the payment of all dues according to the date of such transfer, signed by the Director and Secretary of the District.

4. Any member in good standing, who may desire to withdraw from the Union, shall, upon written application, delivery of his Certificate of Membership to the Director, and payment of all indebtedness, receive from the Union a certificate of honorable withdrawal, signed by the President and Recording Secretary; which certificate, whenever presented to the Director of any District, shall entitle him to full membership in this Union.

ARTICLE XII.

SECTION I.

1. The District Director shall keep a list of all unemployed members in his District, with their qualifications, and a record of all vacancies that occur, together with the requirements of the situation. The Director and his Council shall use their best endeavors to furnish members with suitable situations, and shall also aid the different companies in procuring proper operators to fill vacancies; and in awarding situations they shall take into consideration the capacity of members in regular rotation, as their names may appear on such list.

By-Laws.**ARTICLE III.**

SECTION II.

2. The District organizations shall pay all expenses (other than books and stationery, which shall be furnished by the Union) necessary to carry on the same in accordance with the Constitution and By-Laws, such expenses to be collected as they may deem advisable.

ARTICLE IV.

SECTION I.

1. Upon the decease of any member of the Union, the Director of his District shall cause the event to be published in such papers as may be deemed advisable.

2. In the absence of competent relatives, the District Director and his Council shall take charge of the funeral and render an account to the President of all attendant expenses not exceeding one hundred dollars, that provision may be made for the payment of the same from the funds of the Union.

ARTICLE V.

SECTION I.

1. No operator shall be admitted to membership if proved to have been discharged from any position on account of negligence or unfaithfulness in the performance of his duties, quarrelsome, or disorderly behavior, either in an office or over a line—unless he give satisfactory guarantee to the officers of the District that he has reformed in these respects.

ARTICLE VI.

MISCELLANEOUS.

1. It shall be the duty of every member of the Union to disown the instruction of any person in the art of telegraphy who cannot produce evidence of a good moral character, and sufficient intelligence to become a credit to the fraternity.

2. The use of profane or abusive language over the wires shall be disowned by every member of this Union.

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OF THE

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DUDLEY OBSERVATORY, October 24, 1866.

S. F. DAY, ESQ.:

DEAR SIR:

In answer to your inquiries regarding the electro-magnets you built for me, I would make the following statement:

1st. For magnets of the same size, and a given amount of Battery, they gave more power or effective working force than any I have ever used.

2d. They work with the armature closer to the core than any I have yet tested, and, as a necessary consequence, there is a great gain in the amount of effective work done, since the force is inversely proportional to the square of the distance of the armature from the core.

I have also examined with pleasure the performance of your magnets on the main Telegraphic Lines. From all that I have observed I am convinced that you make a more effective magnet than any that has come under my notice; and I have, perhaps, seen all kinds in general use.

I am, very truly, yours,

G. W. HOUGH, Director.

S. F. DAY, ESQ.:

DUDLEY OBSERVATORY, February 23, 1865.

* DEAR SIR:

Having examined your electro magnets in the telegraph offices here, I am desirous of obtaining information on one or two points. From what I saw in regard to their operation I conclude you have made a very important discovery in the mode of construction.

Having used electro-magnets constantly during the last six years, I am greatly interested in everything pertaining to the application of electricity, either as a motive or regulating power. I should like information on the following points:

1st. In what ratio do your "receiving" magnets exceed in power the best magnets now in use, having the same length of coil?

2d. Can you construct "coarse" wire, or quantity magnets (for a local circuit) which will have double or treble the effective working power of the ordinary magnets of this kind now in use, the length of coil and batteries being the same in both cases?

I am, very truly, yours

G. W. HOUGH, Director.

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THE

I. WASHBURN & MOEN
WIRE WORKS,

WORCESTER, MASS.

MANUFACTURERS OF

Patent Galvanized Telegraph Wire,
PUT UP IN MILE AND HALF-MILE
BUNDLES.

Possessing the exclusive right to galvanize in America by "BEDSON's" patent process, we invite the attention of purchasers to our Wire, confident that no other known method of zinc-plating secures so perfect a union of THE METALS, without injury from acid.

We have unequaled facilities for furnishing large amounts promptly, and solicit orders. We also manufacture

ANNEALED AND PLAIN
TELEGRAPH WIRE,

AND

IRON AND STEEL WIRE,
FOR ALL PURPOSES.

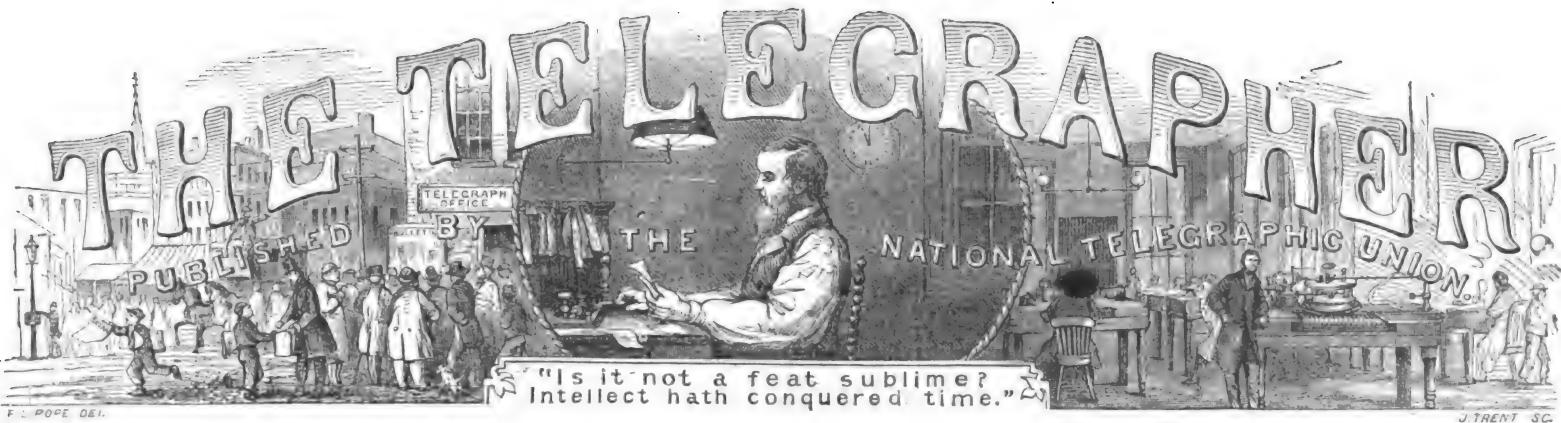
New-York Office and Warehouse,

42 CLIFF STREET.

I. WASHBURN, Pres't.

P. L. MOEN, Treas.

W. E. RICE, Sec.



Vol. III.

New-York, Friday, March 15, 1867.

No. 48

Toye's Repeater.

We made some mention, in a former number of *THE TELEGRAPHER*, of a new repeater invented by Mr. Benj. B. Toye, of Canada, who has since applied for a patent upon it. We now take pleasure in presenting our readers with an illustration of the same, and its operation will be at once understood by the following description:

In the diagram *M M'* are the relay magnets of the Eastern and Western circuits respectively. *S S'* are the sounder magnets, which are connected with the relays and local batteries in the ordinary manner. These connections are omitted in the drawing to avoid confusion of lines. The flat springs, *a c* and *a' c'*, are supported by the standards, *P P'*, but are insulated from them by a piece of vulcanite rubber, as shown in the diagram.

E and *W* are the Eastern and Western line wires, and *B* is the point of connection with the main battery and ground. At *R* and *R'* is a "resistance," which should be adjusted so as to equal that of the main line as nearly as practicable.

In the diagram the operator on the Eastern circuit is supposed to be working, and at this moment has his key open. The Western main circuit is broken by the lever of the Eastern sounder at the points *c' d'*, but the Western relay, *M*, is kept closed by a branch circuit from the battery at *B*, established through the relay points, *a' b'*, the sounder, lever, and standard, the resistance, *R'*, and ground at *G'*, and from thence back to the battery.

Now if the Eastern circuit be closed, the lever of the Eastern sounder, *S'*, will close the Western circuit at *c' d'*, at the same instant breaking the branch circuit at *a' b'*. If the Western circuit is broken, the same action takes place on the opposite side of the apparatus.

If both circuits are closed, each is complete through its own relay and respective points, *c d* and *c' d'*.

For a "resistance" at *R* and *R'*, the inventor states that he has used one or more cups of ordinary Grove's battery filled with water instead of the usual solutions, which is found to answer the purpose admirably. The resistance of each tumbler is found to equal about one hundred miles of ordinary main line.

This arrangement may be dispensed with by running a wire to connect with a section of from ten to fifteen cups of the main battery, but the former method is preferable, as the tumblers can be kept in the operating-room, and can, therefore, be more conveniently regulated.

The repeaters are fitted with button switches, by turning which the lines can be worked separately if required.

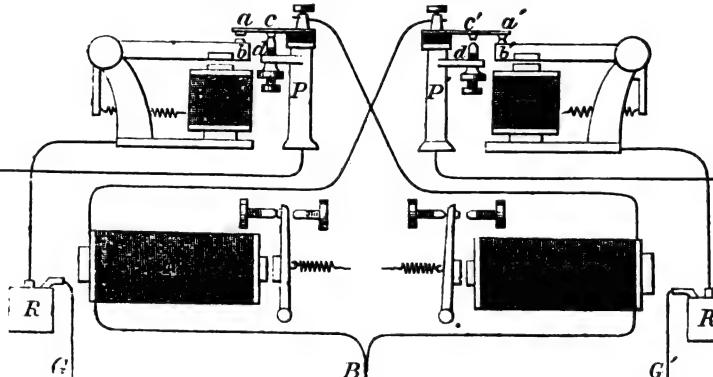
This repeater possesses the advantages of simplicity, reliability and cheapness. It will be seen that the necessary attachments may be made to any sounder at a trifling expense. It might be introduced at many points where the expense and complication of ordinary repeaters are a serious objection, and would greatly facilitate through business. Something of this kind has long been needed, and we hope to see it brought into general use.

Further information respecting this invention may be obtained by addressing the inventor, Mr. Benj. B. Toye, of the Montreal Telegraph Company, Toronto, Canada West.

Notes on the Galvanic Battery.

[FOR *THE TELEGRAPHER*.]

A good galvanic battery is so necessary for the success-



ful working of a telegraph line, and the diversity of opinion among practical telegraphers as to which is the best kind of battery is so great, that I think it may not be amiss for me to promulgate, through the columns of your widely circulated paper, the results of some of the discoveries I have been able to make—aided by my newly-invented Tangent Galvanometer, the Rheostat and the Anthistometer—as to the relative merits of the several kinds of battery now most in use. Those of which I will speak are Smee's sulphuric acid battery, Grove's nitric acid battery, the chromic acid battery, and some forms of the sulphate of copper battery.

Smee's battery has gone nearly out of use on account of the inconstancy of its current. When a circuit is first closed upon it, it starts off with great energy, but the counteracting effect of the gas which accumulates upon the negative plate causes it to gradually decline. I have seen the galvanometer needle fall back four or five degrees in the course of twenty minutes. This difficulty, and its want of intensity, renders it unsatisfactory for telegraphic purposes, but it gives great quantity, and is valuable in electrolytic pursuits.

In Grove's nitric acid battery the theory of the chemical action is such as to make it more powerful (for a given number of cups) in the combined properties of quantity and intensity, than any other battery. But the enormous expense attending its use, together with the deleterious and corrosive fumes continually emanating from it, are highly objectionable. These difficulties are largely in consequence of local action. If we put a globe of mercury, or a piece of zinc, or of amalgamated zinc into a tumbler, and pour upon it a little diluted nitric acid, a violent effervescence takes place; the tumbler becomes hot, and the atmosphere is charged with nitrous acid fumes and the vapor of nitric acid. This is precisely what takes place in every cup of Grove's battery, just

in proportion to the quantity of nitric acid, which, by its tendency to diffusion, percolates through the porous cup. The large consumption of material, therefore, is due more to this local action than to that which generates the current.

The foregoing objections have caused this battery to go out of use in many places, and to give place to the chromic acid battery.

The chromic acid battery consists of the jar, the porous cup, the amalgamated zinc, and the carbon of Bunsen's battery, and which, instead of nitric acid in the porous cup, is charged with Poggendorff's solution, which, according to De La Rive (Vol. II., p. W 810) is composed of water saturated with bi-chromate of potash and an equivalent of sulphuric acid. This liquid is so corrosive and disintegrating that the carbons, with their connections, can last but a short time, and it has the effect of saturating or filling up the carbons with sesquioxide of chromium, which diminishes their conductivity, making it necessary at intervals of ten

to twenty days, to renew the battery, and submit the carbons to thorough cleansing by immersion in water for twenty-four hours or more. The bichromate solution has to be renewed every day for main circuits and for locals twice a day. This battery is properly called *chromic acid battery*, in contradistinction to the nitric acid batteries of Grove and Bunsen, chromic acid being the active ingredient in the porous cup. The greater attraction of the sulphuric acid takes the potassa, and the chromic acid is set free, but the quantity is so limited (not more than one twenty-fifth of the weight of the liquid), that the battery can never be but short-lived and inconstant.*

The facility with which chromic acid parts with oxygen to form water with the hydrogen which would otherwise appear in a free state at the negative plate, is such as to make this battery very powerful while it lasts, both in quantity and intensity. When we form connection by contact with a short ground wire, a brilliant flame of fire is elicited, which has been referred to by respectable electricians as a property highly meritorious; it is a valuable indication in a battery for electrolytic purposes, but in telegraphy it is the reverse. It indicates a kind of force—not only liable under certain circumstances to heat and destroy the magnet, but prone to escape at every possible opportunity. Every particle of aqueous vapor that touches the telegraph wire receives and carries off a full charge, and every cobweb or other fibrous material that may chance to hang across the wires in a damp atmosphere, carries off a stream of the galvanic force. On the

* The appellation *electropoison*, has been applied by some to this battery; but I think with doubtful propriety, and in bad taste, as it has no distinctive significance; Grove's battery or Volta's pile is just as much *electropoison* as this is. I have no objection to new names applied to old things, provided they are appropriate, and their signification apparent.

THE TELEGRAPHER.

whole, it seems like a hard choice of evils to take this in place of Grove's battery; indeed the objections to both are serious and call loudly for something better.

Daniells' sulphate of copper battery has always been emphatically pronounced "the constant battery," but it is not entirely constant nor free from other objections. The two plates and the partition between the two liquid elements being vertical, the sulphate of copper is first withdrawn from the upper part of the solution, requiring frequent agitation to restore the diffusion, which, for the time being, increases the strength considerably. The precipitated metallic copper attaches itself mostly to the porous cup, and so firmly that it cannot be removed without being mixed largely with the particles of the cup, and generally spoiling it. This mixture deteriorates the metal and renders it unsalable, whereas it would otherwise be pure and very valuable.

Hill's sulphate of copper battery has an arrangement of elements quite different from the above.

The porous cup is dispensed with. The copper plate lies flat in the bottom of the jar, having a protected wire soldered to it, which comes up to the top for making the connection. A circular flat ring of zinc hangs in the top of the jar by means of a hook screwed into its upper surface. The hook terminates at the top in a binding screw. The jar is now filled to a little above the zinc with a solution of sulphate of zinc (white vitriol) at about twenty deg. Baumé—and about one-fourth of a pound of sulphate of copper (blue vitriol) is introduced so as to lie upon the copper plate. In a few minutes the copper plate is seen to be in a deep blue liquid which is beautifully shaded off to white, in which is enveloped the zinc plate, and in taking care of the battery this is the condition to be maintained. The copper solution being specifically heavier than the white liquid, it tends to remain at the bottom; the two plates, therefore, are each maintained in its proper element without the interposition of a porous diaphragm.

As occasion requires (according to the work performed) a little blue vitriol is added, and as the upper liquid grows stronger a little is drawn off, and the jar replenished with water. Not oftener than once a week is any attention required, and once in three or four weeks the zinc should be cleaned off, which may be done without disturbing the working of the battery, by cutting out three or four cups at a time in the usual manner.

This is, without question, the most constant and reliable, and by far the most economical battery for telegraphic purposes of any that has ever been used.

As to the cost of material actually consumed in running these several batteries, I have some data which is deemed reliable, from which I select cases where the batteries performed about equal service in running two long lines each, which give the following results, viz.:

Grove's battery per cup per month.....	\$1.09
Chromic acid " " " " " 3½ to 35 cts.	
Hill's battery " " " " " 4 to 5 cts.	

Now we may concede that ten cups of this battery are required to perform what might be done by four cups of either of the others. We see that the economy is greatly in its favor, for then the monthly expense is not more than one-third that of the chromic acid nor more than one-eighth that of Grove's. Such results seem almost incredible, and yet the following gives a record still more favorable for Hill's battery. I erected a series of one hundred and twenty cups, which were put in operation at W. U. Office in New-York, on the 23d of Nov. last, on one printing wire, and one Morse wire to Boston. In the last thirty days thirty pounds blue vitriol were consumed, and in ninety days seventy pounds only—of which the equivalent of zinc is about nineteen pounds—but the zinc need not be taken into the account, for the precipitated copper being pure, will sell for enough to more than offset the cost of all material consumed except the blue vitriol. The seventy pounds of blue vitriol, at eleven cents per pound (the present cost by the quantity), is \$7.70 or \$1.28 per line per month, or a small fraction over two cents per cup per month for the two lines. This

record was kept, and can be verified at the W. U. Office. The current was admitted to be constant, smooth, and satisfactory.

I have experimented much in determining the interior resistance of the aforementioned batteries, which I do by two methods, the results of which agree almost entirely; and first, by the anerostometer directly, a mode originated by myself, and second, by equations involving two unknown quantities.

The resistance of the nitric acid and chromic acid batteries, under different circumstances, I have found as follows—the circuit being always kept close on a common local sounder—which gives .03 mile exterior resistance.

The unit of resistance is that of one mile, No. 8 iron wire.

	Mile
1 cup Grove's battery [new].....	0.047
Same after running 6 hours.....	0.068
" " " 16 "	0.140
1 cup chromic acid battery [new].....	0.027
Same at 6 hours.....	0.062
" " " [about run down].....	0.184

With Hill's battery the resistance ranges from one to two-tenths mile (according to the size of the cup) at all times. The same cup scarcely varies .02 mile from month to month.

L. BRADLEY.

STATE OF NEW-YORK.

In Assembly.

FEBRUARY 2, 1867.

Introduced by unanimous consent by Mr. H. Smith—read twice, and referred to the Committee on the Judiciary—reported favorably from said committee, and committed to the Committee of the Whole.

AN ACT

To incorporate "The National Telegraphic Union Association."

The People of the State of New-York, represented in Senate and Assembly, do enact as follows:

SECTION 1. J. C. Upham, of Boston, Massachusetts; F. G. Churchill, of La Porte, Indiana; A. L. Whipple, of Albany, New-York; J. G. Riley, of Baltimore, Maryland; G. C. Maynard, of Washington, District of Columbia; H. W. Wheeler, of Boston, Massachusetts, and W. D. Kelly, of Frederick City, Maryland, and their associates and successors, are hereby constituted a body corporate and politic, by the name of "The National Telegraphic Union Association," and to be located in the city of Albany, and by its corporate name shall have perpetual succession, with power to sue and be sued, plead and be impleaded, in any court of law or equity of competent jurisdiction, and may have and use a common seal, and the same to change at pleasure, and be entitled to use and exercise all the powers, rights and privileges incident to such corporation; receive gifts, subscriptions and benefits, and to make such rules and By-Laws as shall be necessary and expedient for the government of the association, and the same to alter from time to time in such mode as shall be by the association be prescribed; provided always that such rules and by-laws shall be in no wise inconsistent with the constitution and laws of the State of New-York or of the United States.

SEC. 2. The officers of this association shall consist of a president, vice-president, secretary and treasurer, and an executive committee of five, and such other officers as the general interests of the association may require, to be chosen in the manner hereinafter provided. The five persons first named in section one of this act shall constitute the executive committee for the first year, or until their successors are elected or appointed, and they, together with the president or vice-president, shall constitute a quorum for the transaction of business. The objects of the association are hereby declared to be the mutual protection in adversity of members of the telegraphic profession, upholding and elevating the character and standing of the profession, the development of the science of telegraphing, the promotion and maintenance

of the general interests and welfare of the profession and its members.

SEC. 3. Said association is authorized to establish a uniform system of fees for admission to membership, in no case to exceed ten dollars, and also a uniform system of dues, payable periodically at such intervals as shall be prescribed by the rules of said association, but such assessment of dues shall in no case exceed the sum of ten dollars in any one year.

SEC. 4. Within seven months after the passage of this act the corporators named in the first section of this act, shall draw up, or cause to be drawn up, a constitution not inconsistent with the provisions of this act, for the government of said association, which shall be approved by a majority of said corporators, or if any refuse to act, then by a majority of the remainder; and said corporators shall also, within the space of seven months from the passage of this act, give written notice to each member of the association, of the time of meeting for the preliminary organization of said association (which notice shall be at least twenty days prior to the time fixed upon for said meeting), in the city of Albany. At said meeting the said constitution shall be presented for the inspection and examination of such persons as may desire to examine the same, from day to day, for the space of thirty days, or until the number of persons signing the same and becoming members of said association, according to the provisions hereinafter prescribed, shall have reached the number of one hundred or more, in the discretion of the said corporators. Every person desiring to become a member of said association, while the preliminary organization is proceeding, shall be allowed to do so, by the payment of a sum not exceeding ten dollars, and signing the constitution for the government of said association. Due notice of the place of signing the said constitution and of the organization of said association, shall be advertised for the space of six days in two of the daily newspapers having the largest circulation, published in the cities of Albany and New-York, in advance of the time fixed for the preliminary organization. When the number of persons signing the constitution and becoming members, as is hereinabove prescribed, shall have reached the number of one hundred, they or a majority of them, at a meeting appointed for that purpose, shall have power to proceed to organize the association upon a permanent basis, by the choice of officers and the adoption of such by-laws for the regulation of the association, not inconsistent with the provisions of this act, as shall be deemed expedient and necessary.

SEC. 5. For the purposes of said association, and no other, said association shall have power to hold and convey real, personal or mixed estate, not exceeding in value the sum of one hundred and fifty thousand dollars.

SEC. 6. The legislature shall have power to alter, amend or repeal this act at any time.

SEC. 7. This act shall take effect immediately.

Correspondence.

SAN FRANCISCO, Cal., Jan. 19, '67.

TO THE EDITOR OF THE TELEGRAPHER:

The imperativeness of the principle emphasized in our National Preamble—"Identity of interests" is coming more and more out of the past of our organization, and assuming a bold front and inviting figure before operators of every grade.

It can be seen in the philosophical ideas which are multiplying within our ranks. "Inca" (in your number 42) discovers the true spirit. His persuasive voice finds a chorus of echoes in California.

The process he dissects, operators "sticking," "rushing," "guessing," "swamping," and mixing things generally, is a series of sarcasms on telegraphing at large. We have too long forgotten this elementary, initiatory

truth, "identity of interests." Are not the interests and profits of my employers my interests and my profits? and shall not an operator whose profession and calling it is to promote, conscientiously, his employers' interests; to invite the public patronage and confidence; to defend against unjust and ignorant aggression the intentions and the motives of his employer; to make, by an individual uprightness, promptness and fidelity, the collective rights, the compensations of all kinds whatsoever, and the just privileges of his profession, an unmistakable prerogative? Good, moral conduct, changeless promptness and accuracy, and a more than transient interest in our employers' business, and permanency, will obtain for us a progressive system of rewards.

No company will be tuned up to an appreciative pitch of "services rendered" while the eminent attainments of telegraphers have a climax in the ultimatum of the New-York and New-England Champion Telegraph Club. So let us reflect upon our present and future interests, we who are operators or who intend to remain so, and apply the same result of our reflections to each day, reposing in future, the good zealous members of our day, and the fidelity of each integral element of the organization, all its humane objects, all its professional compensations, all its homage and value to immortal science, and all its sacred contributions to human improvement.

CALIFORNIA.

Quick Work.

TO THE EDITOR OF THE TELEGRAPHER:

SEVERAL papers of this city giving publicity to and boasting of the rapidity of telegrams having been sent and received from distant stations, I consider that the following will place them in the time of slow coaches and "specie payments":

A telegram was handed in to the office of the Bankers' & Brokers', at Philadelphia, to Smith, Randolph & Co., Gold Room, New-York, ordering the purchase of fifty thousand dollars in gold. It was received, entered on the books, handed to the representative of the firm, order executed, answer returned, and received by the parties sending it in thirty seconds.

As the above transpired under the observation of the writer, who is in no way connected with telegraph companies, and entirely unprejudiced, he solicits its equal; and in conclusion would state that it is a daily occurrence to have the same thing performed within one minute.

New-York, March 9, 1867.

T.

TO THE EDITOR OF THE TELEGRAPHER:

WHAT has become of the Zanesville District of the National Telegraphic Union? Perhaps Mr. Kerby can answer this, as he was chosen Director.

MA.

West Manchester, Pa., March 8, 1867.

F. D. writes:

"May I ask a question through your columns of the person who got 'one hundred and fifty-nine words' by transposing the word 'telegraph'? I can almost reach that number."

"Were those 'one hundred and fifty-nine words' from word 'telegraph,' which were all 'sensible,' all correctly spelled, according to Webster?"

•••
Humors of the Telegraph.

A FRIEND in town writes:

"The following is the relation of an actual occurrence, which transpired a few years ago in my presence, and which, also, can be vouched for by two gentlemen not connected with the profession, but who were highly-amused spectators of the scene:

"In the summer of '62 I was in charge of one of the principal hotel offices on the New-York City Line, doing a right smart business and running a printing machine,

One day I had a customer in the person of a "reliable contraband" of the female sex. She was young, tall, and decidedly good-looking, being extremely "off color," or, in short, a "light straw" (she was a jewel), who opened the conversation with "Am dis de telegraf offis?" I replied in the affirmative, in my usual gentlemanly manner, and requested to be enlightened as to the means by which I could be of service to her. She responded, at the same time lifting a basket of peaches upon the counter, weighing, probably, twenty-five pounds, with a card of directions attached to its handle. "Well, if dis am de telegraf offis, I want dat sent to Proverdens."

"I was somewhat engaged at that moment, getting up my monthly reports, etc. (or I should have had a keener appreciation of the joke, and lent my aid to keep it in motion), so I endeavored to explain to my fair mulatto the mistake she had made in applying to a telegraph instead of to an express office; but 'twas labor in vain. She insisted that: "De missus sent me to de telegraf officis under de —— Hotel wid dat basket of peaches, to go to Proverdens," and "if dis was de spot, all you'se got to do's is to send 'em."

"After much persuasion I finally got rid of my determined customer, who seized her basket savagely, and swung it and herself out of the premises, uttering direful vengeance against "de missus fo' makin' sich a damn fool ob me, as to make me tink dars gwine to send a basket ob peaches to Proverdens by lightnin'!"

"The two gentlemen aforementioned, who where visitors of the subscriber, and his (the subscriber) humble self 'smiled' audibly, inwardly and frequently (ask the bar-keeper) over 'dat basket ob peaches, you bet.'

THE readers of this department of our paper have indulged in so much merriment over the blunders of their co-laborers that it is sometimes necessary to remind them that a message doesn't always need to be "bulled" to make it supremely ridiculous, as in the following instance related by "Phranq." He writes:

"The other day an explosion of 'laffure' took place in our office, which proved to have been ignited by the following message just received by one of the boys:

"B. to K—— & D——:

"Ship immediately twenty-five boxes Tom Cats.
(sig.) " — .

"After the cachination had partially subsided, somebody happened to remember that among the articles exported by the firm of K—— & D——, tomato catsup held a prominent position, and the mystery was explained."

CAN any one explain the message which passed over the W. U. Line a few days ago, couched in these simple but suggestive words: "Mary had a little lamb."

MANY of our readers have laughed over the story in a former number of the pugnacious operator who fought circuit with a "cross" till it "bd," but he must henceforth "hide his diminished head," as witness the following, related by a correspondent up the river:

"In the earlier days of telegraphy, it was the custom upon some lines, in order to save the battery, either to have the office last working 'write dots,' or for a central office to set his clock pendulum beating time upon the wire, until it was needed for business again, when the clock was switched off. A Canadian operator, not far from Montreal, who was never known to have been beaten in his little controversies for circuit, actually fought with a clock at Quebec or some other place all night."

"He fought the operator till bed-time. Then the substitute was set to work; and when the Quebec man opened his office in the morning, the unequal contest was still going on. After switching the clock off, an audible crow came over the wire from the Montreal game-cock. The clock might be able to beat time, but it couldn't beat him."

The gentleman from the provinces can go to the head.

HERE is another good one from the same source:

"Cleveland, Ohio, used to boast of its proud position as executive office of the W. U. Telegraph Company; when not only the President and General Superintendent lived there, but from there issued their general orders. In those days the eastern terminus of the line was Buffalo; and as repeaters—the seven-league-boots of telegraphy—were scarcely out of their swaddling-clothes, repeating stations had plenty of legitimate telegraphing to do.

"Upon one of those days Cleveland called up Buffalo, and told him he had a 'pile' for him. Buffalo replenishes his clip, sharpens up his pencil, and says to Cleve and 'wade in.'

"Cleveland opens about two minutes and replies, 'no, he is not in.'

"Then Buffalo laughed, for the Cleveland man had been looking through the entire building for President J. H. Wade."

SOMEBODY in Washington has sent us a message blank; the printed heading of which contains one of the most ludicrous blunders we have seen in some time. Here it is:

"Insulated Lines Telegraph Co.

"MAIN OFFICE, 47 P. Fifteenth st., between Pennsylvania ave. and J. st.

"BRANCH OFFICES. House of Representatives," etc., etc.

The main office of the above company being situated at 476 Fifteenth st., we should think from internal evidence that the printer's copy may have been sent to him over the wires!

A CHICAGO contributor says:

"Herewith are some 'bulls,' made not far from this office, which I do not recollect having seen in print. A message for 'J. V. Farwell & Co., wholesale house,' was received 'Whole and ale house.'

"Another by an 'owl' (who ranks as first-class, but on this occasion, with hard working lines, trusted too much to guessing) made a South American item in relation to the war there, read, 'The Peruvians and Chilians have formed a 'Coal Italian,' etc. Probably 'coalition' would sound better.

"Another by the same operator stated that a vessel loaded with 'yo' had been lost in a storm. He says he 'broke' three times on it, and not till next day did it occur to him that the vessel might have been loaded with 'ice.'

THIS is from Lee, Mass.:

"The express and telegraph office are in the same room here. A lady came in one day and inquired for an express package. While it was being looked up, she spied the telegraph machine. 'What is that?' inquired she. 'Telegraph instrument,' replied the operator. 'Oh, said she, excuse me, I didn't know. I was never in an express office before.'"

A GOOD story is also told of M——, a repairer on the Housatonic Railroad. One day M—— was ordered to open an office at Housatonic, and having received his instructions and a sketch of the instruments and circuits from the superintendent, started for H. But no signals were heard from the new office that day. When M—— returned at night tired and vexed with his hard job and poor success, he assured the superintendent that he had put up the instruments, and run the wires exactly like the plan given him. The superintendent re-examined his sketch, but finding it correct concluded to see for himself. Next day he went to H. and found that M—— had followed the plan a *little* too exact, for where it was necessary in the sketch of circuits to cross the lines, M—— had cut off the gutta-percha and made good connections. The extra connections were removed, and communication established between Housatonic and the rest of the world.

Two French peasants were discussing the Contingent war, when one attempted to explain to the other the nature of the telegraph. After repeatedly failing, he was struck with a brilliant notion, and exclaimed: "Imagine

that the telegraph is an immense long dog—so long that its head is in Vienna and its tail at Paris. Well, tread on its tail which is at Paris, and it will yelp at Vienna. Do you understand now what the telegraph is like?"

SENDING BY A CIRCUITOUS ROUTE FOR A CHEW OF TOBACCO.—*The Buffalo Commercial* is responsible for the following telegraph yarn, that is rather tough, but we are told that it occurred in Buffalo, and that one of the actors in the scene is dead. Two operators in an office chewed tobacco. One had charge of the Eastern, the other of the Western wires. Their desks were thirty feet apart. One summer morning West wanted a chew, but was too lazy to travel across the room to East. So he sent a message over the Western wire, addressed to his office companion, requesting him to send over "a chew of tobacco," quick. The message went to Cleveland, Pittsburgh, Philadelphia, New-York, and Albany, presently came back into East, who received it, and walked across the room to West, who sat in his chair yawning and longing for his weed. The message travelled over eleven hundred miles.

District Proceedings.

CALIFORNIA DISTRICT, Feb. 4.—Regular meetings for January and February held this evening. Total present, twenty-nine. Meeting opened by pertinent remarks by Director, giving reasons for delay in meeting, urging members to more complete individual action.

Treasurer's report offered. Mr. J. R. Youtz, of San Francisco, was elected correspondent of THE TELEGRAPHER by large majority. Committee report on method and expense of preserving location of Brother Franklin's grave in dreary Nevada was accepted, but matter indefinitely postponed. A resolution introduced by Mr. J. W. Brown, authorizing Treasurer to pay \$45 out of our local fund towards defraying the funeral expenses of R. J. N. Franklin, was declared the unanimous voice of District. Day and hour of meeting of District was changed from Sunday to Monday, by voting change in Local By-Laws. Meeting then adjourned, after very interesting session.

BALTIMORE DISTRICT.—Regular meeting, March 2nd. Called to order 8:30, P. M. Nine members present. Mr. Steadham in chair.

Mr. Yeakle offered amendment to By-Laws, making number of members necessary to constitute quorum seven instead of nine, which was adopted.

Application for membership was received from Mr. F. J. Connor, recommended by Mr. F. J. Morrison, of Parkersburg, which was referred to Executive Committee.

There being no further regular business, District took up special subject of this meeting, viz.: Means of promoting greater interest in affairs of National Telegraphic Union, which, after considerable discussion and proposal of diverse means of accomplishing the desired object, was laid over till next meeting.

At 10:30, P. M., meeting adjourned.

BOSTON DISTRICT.—Regular meeting held March 8th. District Treasurer's report read and accepted.

Mr. P. H. Burns, being over nine months in arrears, was expelled from membership.

District Director announced that he had appointed Mr. C. I. Brown as one of his council, in place of Mr. J. W. Stover, transferred to New-York District.

Mr. J. W. Duxbury was elected a correspondent to THE TELEGRAPHER, for this District, in place of Mr. Stover.

The Director announced that Mr. D. E. Rand had been duly transferred to this District from the Washington District.

Other business of purely local interest was transacted, and at 10:20 the meeting adjourned.

The London Times says that on the Stock Exchange the assumption still seems to be general that the British Government intend to incorporate the telegraph with the post-office system, notwithstanding the official denial given a few weeks back. It is estimated that the purchase money of the capital and rights of the existing companies, exclusively of the Atlantic line, will amount to about £5,000,000.

The first relay magnets with movable helices or coils were made by Morris Hall in 1851.

Telegraphic Miscellany.

WANTED.—Clean copies of Number 46 (February 15) for which we will pay full price.

The Deficiency Bill before the House of Representatives during the last weeks of the Thirty-ninth Congress, contained an appropriation of \$202,212 for dispatches over the Atlantic cable.

In the House, March 4, the Speaker, by leave of the House, presented, out of its regular order, the Senate joint resolution, presenting the thanks of Congress to Cyrus W. Field, which was thereupon read three times and passed unanimously.

The Philadelphia Press pitches into the telegraph for lying. Prentice says two of a trade never could agree.

The Queen's speech, transmitted by the Atlantic cable, cost the American press \$2900 in gold, or \$3973 in currency.

The telegraph from Constantinople to Bagdad consists of two wires, one being insulated with Siemen's insulators, and the other with Latimer Clark's. The line from Bagdad to Fao is constructed with iron poles, and Siemen's insulators are used for both wires.

There are over one thousand miles of telegraph wires in the city of New-York.

A TELEGRAPH OPERATOR writes to *The Cincinnati Commercial* that during his eighteen years' experience he has noticed that nine out of ten changes in weather come from the west. He first noticed this in Baltimore; the oyster dealers of that city being informed by dealers in Cincinnati of changes in weather at the latter place eighteen hours before the same change reached the former. During three years' experience at Baltimore only one storm came otherwise than from the west, and since going to Cincinnati the observer has noticed that all changes in weather there are felt at St. Louis about twelve hours earlier.

In addition to the two Atlantic cables, there have been laid in different parts of the world fifty-four submarine cables, of an aggregate length of 6811 miles, with over 11,000 miles of insulated wire.

It is said that there never was the slightest intention on the part of the Government to take the telegraphic lines into their own hands, and work them on the same principle as the post-office.

The number of telegraphic dispatches exchanged in the city of Paris now exceeds 1500 a day.

THE WESTERN UNION TELEGRAPH MONOPOLY.—The official statement of the Western Union Telegraph Company shows that the gross receipts for the single month of November reached five hundred and seventy-one thousand dollars, the net earnings out of which amounted to nearly a quarter of a million. These enormous profits are secured by the heavy rates charged upon messages, the company having shut out competition by buying up all opposing lines. The press, which suffers more than private individuals through this monopoly, will probably before long construct independent telegraph lines for newspaper business, by which a saving of from fifty to seventy-five per cent in the cost of reports can be made. These lines will be opened for the transaction of private business as far as practicable, and as they will convey messages at the lowest possible rates, they will destroy the present monopoly and insure better attention and more reasonable charges to the public.—*Herald Editorial*.

We find in *The London Observer* the following reports of cable receipts: "The receipts from the working of the Atlantic telegraph up to the present time have averaged £813 a day, including Sundays and forty days of the stoppage of the land lines. Since November 1, however, when the price of the message was reduced from £20 to

£10, the average receipts have been £874, or at the rate of £205,133 per year."

A stockholder writes to *The London Times*: "Both of the cables are, I am assured, in excellent working order, and the present business does not occupy in transmission more than four hours per day, and that upon one cable only."

The project of connecting the telegraph with the post-office is considerably discussed in the English papers, and it is stated that the British favor the scheme. The main argument for it is that the Government can do the business cheaper than private companies are likely to, and that the telegraph virtually connects itself with the post-office, and will do so more and more as the business becomes more thoroughly systematized and made available for the masses of the people. In this country the idea grows in public favor, and there is a common conviction that it must eventually be reached. The plan talked about now at Washington is that the Government shall try the experiment on a limited scale, by building a line from Washington to New-York, and transmitting dispatches at a very cheap rate—some say as low as three cents for a dispatch of ten words for that distance, and five cents more for delivering. But this would hardly pay expenses. Ten cents for transmission and five for delivery might.

WHAT is the difference between the Western Union Telegraph Company and a Wall-street banker?

One bonds the managers, the other manages the bonds.

The telegraph and express line is now open from London to Tientsin, the port of Pekin, China. The time occupied in the transmission of messages from London to Tientsin is now reduced to twelve days.

The special correspondent of *The Chicago Tribune*, under date of London, Jan. 19th, says: "M. Aurelier, school editor of the new Paris paper, *Le Camarade*, is about to establish a special telegraphic communication with London, St. Petersburg, Vienna, Berlin, Florence, and Madrid, whereby the visitors from the various capitals will be made hourly acquainted with the most important facts that are taking place in them."

New-York Daily Tribune paid for telegrams in 1865, \$22,044.76; 1866, \$38,776.04.

A REMARKABLE discovery is reported in Italy, by which two persons may converse by telegraph, recognizing even the sounds of each other's voice. There was something like it here years ago, between New-York and Boston, but it was given up on account of the New-York operator's breath smelling too strong of bad gin.—*Ez.*

A TELEGRAM from the office in this place was sent at ten A. M. yesterday (30th) by Frederick Billings, Esq., of this town, to his office in San Francisco, and a reply received at two P. M., in a space of only four hours. Considering the distance, the time required by his clerk to obtain the information desired and prepare the answer, and the several repetitions along the line of both the dispatch and answer, such an achievement in telegraphy seems truly wonderful.—*Woodstock Standard*.

We would call the attention of our readers to the advertisement of Dr. Bradley in another column. His magnets are constructed in a peculiar manner, and have gained an excellent reputation among operators. Dr. Bradley was the inventor of that favorite instrument for main circuits known as the "box sounder." His prices will be found very reasonable.

THE submarine cable across Chesapeake Bay, between Fortress Monroe and Cherrystone, has recently been underrun and repaired by Messrs. Hendrickson and MacDonnell, of New-York. The damage to the cable was probably caused by lightning during the recent thunder-storm, which is a rare occurrence at this season of the year.

EXTRACT from report of committee of the Ohio Legislature:

"In pursuance of the principles explained in this report, we have prepared two bills, one creating the office of Commissioner of Railways and Telegraphs, and one containing such general provisions of law in reference to the matters submitted to us, as they have deemed proper to recommend."

"We have taken some testimony in reference to telegraph companies, which we also submit. The Western Union Telegraph Company has purchased the lines of the United States Telegraph Company, the only company organized under the laws of Ohio. The former company has constructed its lines and taken its rights of way without any authority from the State therefor. We have thought it advisable to charge the duty of collecting information in reference to them, and attending to the enforcement of the laws against telegraph companies, upon the Commissioner provided for under the law submitted to the Senate."

SOMEbody has presented a petition to the city council of New-Orleans asking for the exclusive privilege of establishing a telegraph through the city.

THE receipts of the Atlantic cable up to the present time have averaged £813 a day, including Sundays and forty days when the land lines were stopped.

It is said that the Western Union Telegraph Company have ordered all the telegraphic material belonging to the Russo-American line to be taken to Los Angelos, a port in Southern California, on the line of the proposed Southern Pacific Railroad. This looks as if another overland line to California was in contemplation. We believe this is also the proposed route of the Globe Insulated Lines Telegraph Company.

THE Southern Telegraph Company, of which Gen. Kirby Smith is President, have recently made a call upon their subscribers for the third installment of twenty per cent upon the capital stock subscribed. This company are now running their wires through the city of Louisville, Ky.

We understand that a new telegraph company has recently been formed for the purpose of laying a subterranean telegraph line between New-York, Boston, and Washington.

THE Western Union Company have opened an office at Orangeburg Court-House, S.C.

THE Merchants' National Telegraph Company will soon extend its wires from Oil City to Pitthole, Pa.

By recent advices from Canada we learn that the second attempt to establish an opposition telegraph line in Canada has failed, the Provincial Telegraph Line having been consolidated with those of the Montreal Telegraph Company on the 1st of March. The first opposition to the Montreal line was the Grand Trunk, which did not last long, as the company foolishly run branches to nearly all the villages and out-of-the-way places that they could conveniently reach. It ultimately fell into the hands of a private individual, who sold out to the Montreal Company. The Provincial Telegraph line has been in operation less than two years, and has gradually been extending until it now connects with every place of any consequence in the Province. It was difficult to compete with the old-established Montreal line, and it finally had to give way to the great monopoly. Report says that a company composed of Messrs. Gzowski, McPherson, and George Brown intended to purchase the line; but they were just too late, their intention having leaked out, and the Montreal Company saw it to their advantage to secure the line.

A CABLE dispatch from London, dated March 9th, says that Mr. Cyrus W. Field has consummated the purpose for which, chiefly, he went to England a few weeks ago, by contracting for a submarine cable to be laid from Placentia, Newfoundland, to Sydney, Cape Breton. The enterprise looks to still greater security for regular and

prompt transmission of cable news between the United States and the Old World.

THE New-York and New-Haven Railroad is experimenting with an automatic magnetic switch. It is so constructed that information is sent automatically each way from the switch to the next station whether it is open or shut, and engineers thus forewarned may avoid the risk of accidents by misplaced switches.

The *Telegraphic Journal*, the first number of which was to have been issued on the 7th of March, has, as yet, failed to put in an appearance.

THE Franklin Telegraph Line between New-York and Boston is crowded with messages to its utmost capacity, the business having largely increased since it passed into the hands of its new owners. The construction of the line is excellent, the wires being of extra size, well strung, and well insulated. The management is in the hands of practical telegraphers, which is the great secret of its success. J. A. Stearns, late of the Boston Fire Alarm Telegraph, and a thorough electrician, is President, and J. G. Smith, formerly Assistant Engineer of the American Company, is Superintendent.

THE International Line is now in operation from Boston to Portland and Bath, working in connection with the Franklin Line. It is intended to extend this line to Halifax, N. S. It has two wires, upon Lefferts' block insulator.

CABALISTIC.—We think there is too much ado about the greatness of the Atlantic cable going from one continent to another. We remember in our boyhood of the telegraph wires reaching from pole to pole.—*Godey's Lady's Book*.

THE soundings for the cable between Cuba and Florida have been completed, and the cable will be laid next June. A submarine mountain 8000 feet high was discovered while making soundings. The average depth of the water is 5100 feet. The land line has been commenced, and will be completed in about two months.

THE Smithsonian Institute at Washington has recently received forty boxes from the Western Union Telegraph expedition, containing specimens of natural history, minerals and plants.

THE public are beginning to realize the benefits of opposition in the reduction of tariffs to several important cities. The rates since March 1st have been as follows: New-York to Philadelphia, 25 and 2; Baltimore, 35 and 3; Washington, 40 and 4; Pittsburg, 55 and 5. It is not improbable that a still further reduction may be made before long.

THE closing commercial intelligence from the London and Liverpool markets was published, for the first time, in the New-York evening papers of the same date—Feb. 28, 1867. It was transmitted between London and New-York in less than an hour—thus beating time by about three hours.

A FEW days since, a goose flew against the telegraph line at Kittery depot, Me., with such force as to twist a couple of the wires together nearly the whole distance between two poles. The wires were fully two feet apart, and were strung very tightly. The goose, though at first apparently killed, soon recovered. This is a tough story, but is vouched for by several persons who saw the occurrence.

THE Western Union Telegraph Company is now paying its January dividend at the office of the company, No. 145 Broadway, instead of sending out checks to the stockholders, as has been done heretofore. The change was made necessary in consequence of the loss and mis-carriage of checks through the mails, and the frequent changes of residence, without notice, in a class of stockholders so large and so widely scattered.

TEN thousand dollars' worth of stock in the National Telegraph Company have been subscribed for in Ballston Spa, N. Y.

A GENERAL meeting of the Anglo-American Telegraph Company was held on the 4th of February. The Directors congratulated the shareholders on the success of the enterprise. The profits of the company since the opening have been at the rate of 25 per cent per annum on the capital embarked. A dividend of 10 per cent on the subscribed capital was declared.

The *New-York Herald* says that "arrangements are being made for the proposed telegraphic match between the champion telegraphic operator of New-York, Mr. P. H. Burns, and Mr. D. P. Bleakley, of Pittsburg. The operators will take a leader of one of the New-York daily papers, extending over some five hundred words, to ascertain which can manipulate it in the quickest time and most correctly, the prize being a golden key given by their brother operators. Two gentlemen of the New-York Telegraph Club will act as umpires, and should Mr. Burns maintain his championship he intends to challenge the telegraphic operators of England to a match over the Atlantic cable."

Inasmuch as the working of sea cables requires a totally different system of working from a land line, to say nothing of its capacity for speed being limited to about twenty words per minute, we don't see how; but perhaps we shall if we live long enough.

THE Senate of Virginia has passed a bill enacting that the rates charged by any telegraph line within the State shall be prescribed by the Board of Public Works. The bill also requires that all messages of the State Executive Department, and all railroad and canal companies in which the State is a stockholder, shall be forwarded and delivered free, and have precedence over all except Federal Government business. For a violation of this act any telegraph company shall be subject to a fine of not less than \$100, or more than \$500 for each offense.

The *Cincinnati Commercial* says that a proposition is under advisement that the Associated Press shall have certain hours set apart during which the Atlantic cable shall be used exclusively for the transmission of news reports, for which they are to pay the cable company the sum of \$200,000 per annum. It is to be hoped this arrangement may be consummated.

A TELEGRAPHIC apparatus for taking the yeas and nays has been brought before Congress by the inventor, Mr. John Blackie, of New-York. We understand there is considerable probability of it being adopted. It would certainly be a great improvement over the method which has always been in vogue.

The *Boston Advertiser* suggests, in the case of the correspondence between the young men, Alfred and James, that condensation would have been much cheaper at the present cable rates. For instance:

MR. BENNETT TO PRINCE ALFRED.

OFF COUES, Dec. 31, 1867.

YOUR ROYAL HIGHNESS: I'm going to give you my yacht. My regards to your mother and the royal family.

J. G. BENNETT, Jr.

PRINCE ALFRED TO MR. BENNETT.

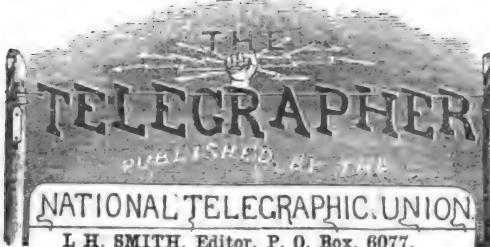
DEAR SIR: I must decline with thanks. This establishment does not advertise in *The New-York Herald*.

ALFRED.

THE Western Union Company's office in Charlestown, Mass., was destroyed by fire the night of Feb. 5th. Instruments, and all other company property, saved.

THE Western Union Company are out with some new blanks for the use of their Atlantic cable customers, which are heavy, especially on their "terms and conditions only."

WITH a given external diameter to the core of a submarine cable, the most rapid signaling will be obtained with a copper conductor having a diameter of 0.6065, the external diameter of the core.



FRIDAY, MARCH 15, 1867.

The Russo-American Telegraph.

The announcement made in the newspapers a few days since, that the directors of the Western Union Telegraph Company had indefinitely suspended operations upon the Russo-American Telegraph Line, has not unnaturally created much surprise in the public mind. So much has been said and written respecting the importance, the necessity, and the practicability of this enterprise, up to the very moment of its sudden abandonment, that the public find it difficult to understand the precise causes of the step, the general impression apparently being that the Russian line has been bought off by the Atlantic cable company. This would be very agreeable intelligence to the Western Union stockholders, no doubt, if it were only true, but, unfortunately for them, the supposition is entirely without foundation.

A review of the history of this enterprise, from its commencement up to the present time, exhibits such gross mismanagement, and such a disregard of the plainest dictates of common foresight and prudence, that the inevitable collapse of the whole scheme has long been predicted by those best acquainted with the facts in the case.

When the project of an overland telegraph to Europe via Behring Strait was presented by Mr. Collins to the directors of the Western Union Telegraph Company, they were, no doubt, led to give it a favorable consideration, in consequence of the great pecuniary success of the overland line to San Francisco. This, too, had been sneered at as a visionary and impracticable project, running as it did for thousands of miles through an uninhabited desert waste, amid hostile tribes of Indians, and crossing the highest mountain ranges in the continent. Yet after it was built—chiefly through the efforts of Mr. J. H. Wade, President of the Western Union Company—it is said to have returned the original stockholders six hundred per cent on their investment.

Further than this, these gentlemen were very skeptical on the subject of submarine cables. Their telegraphic experience had been entirely confined to the inland lines of the great West, and the possibility of successfully working a cable of two thousand miles in length seemed to them an utter absurdity, notwithstanding that it had been fully demonstrated by the working of the imperfect ocean cable of 1858. No telegraph engineer or electrician of ability from that time forward ever doubted the ultimate success of the Atlantic telegraph.

The Western Union directors, however, without the slightest knowledge of the difficulties to be overcome, and dazzled, by the apparently infallible success of every enterprise undertaken by them, determined to carry out this gigantic enterprise at the earliest practicable moment, and the Western Union Russian-Extension Company was accordingly organized, with a capital of \$10,000,000.

One-tenth of the stock of the company, amounting to \$1,000,000 par value, was assigned to Mr. Collins, free from call or assessment, as paid-up stock. He also received for his services and expenses while engaged in securing the grants the sum of \$100,000, chargeable upon the fund arising from the creation of the Extension stock.

Active preparations were commenced and carried on during the summer and autumn of 1864. Capt. Charles S. Bulkley, the constructor of the great Washington and

New-Orleans range of lines, was appointed Engineer-in-Chief, and an immense amount of supplies and material was purchased, and shipped for the Northwest coast early in the winter.

It appears to have been the fixed idea of the directors at this time to establish the line directly along the coast, or so near it as to be accessible at numerous points by water transportation, and all preparations seem to have been made with this expectation. In the absence of any very definite information regarding the country west of the Rocky Mountains, the idea of first sending some competent parties to visit British Columbia and Sitka, to obtain some knowledge of the probable nature of the difficulties to be surmounted, seems never to have been thought of.

By early spring the members of the expedition had reached San Francisco, and a construction party had already commenced work in the lower part of British Columbia. The Engineer-in-Chief had made a voyage up the coast as far as Sitka, which disclosed the fact that the coast route was utterly impracticable, the coast line being one mass of precipitous, snow-clad mountains, from the Gulf of Gengia to the peninsula of Alaska. A party was therefore started in May to explore the interior route northward from the settlements in British Columbia, who, during the season, reached a point about eight hundred miles from New-Westminster, wintered there, and came out in the spring to the coast via Stikine River, discovering the route thus far to be very favorable. The construction party, during the same season, built four hundred miles of line from New-Westminster, northward to Quesnel.

Owing to various delays, it was not until about the 1st of August that the main expedition sailed from Victoria, and the field of operations was not reached until about the close of the season. Very little was accomplished beyond landing exploring parties at Norton Sound, and at two or three points on the Asiatic side.

The most extensive and expensive preparations were made for the campaign of 1866. During this season there were no less than twenty-four steamers and sailing vessels employed in different departments of the service. But the same inexplicable and fatal delay again occurred, and it was not until the latter part of June that the expedition left San Francisco for the Asiatic coast. The parties left there the previous season had made a good use of their time during the winter, as the whole of the Siberian portion of the route seems to have been pretty thoroughly explored. However, the real difficulties of the route are not in the Asiatic, but on the American side. In Siberia the route is comparatively near the coast, and is accessible at numerous points by means of water transportation. Depots of supplies being established at these points, it was not a very formidable undertaking to explore the intervening country. A glance at the map, however, will show the difficulties of the American portion of the route.

In consequence of the impenetrable masses of mountains which range along the coast from Vancouver Island to Alaska, the only feasible route for the telegraph is along the interior plateau, at no place approaching within two hundred miles of the sea, and only accessible from thence at three or four points—the Skeena, the Stikine, and the Youkon Rivers, and possibly also at Lynn Canal, to the north of Sitka. Between the latter point and the head of navigation upon the Youkon intervenes a space of not less than nine hundred miles—a dreary, untraversed waste, totally destitute of any means of subsistence. No transportation, except by means of dog-sledges, is available, and as these cannot carry provisions enough to subsist men and animals more than half that distance, it is not easy to see how even an exploring party could penetrate this inhospitable wilderness, to say nothing of the transportation of supplies and material for a construction party.

Notwithstanding the palpable fact that in this region lay the principal obstacles to be surmounted in the ex-

ploration of routes, and the construction of the line, comparatively little attention seems to have been devoted to it by the managers of the enterprise from the outset. As before mentioned, an exploring party was left at Norton Sound, who spent the winter in that vicinity. Two of them, in spite of the death of their leader—the lamented Kennicott—succeeded in ascending the Youkon to the junction of the Porcupine, from which point they returned to the coast. Beyond this, very little seems to have resulted from their labors.

The official who was nominally in charge of the American division appears to have devoted his entire energies during the season to the extension of the line northward to British Columbia. But instead of following the direct and feasible route to the Stikine River, discovered by means of the previous year's exploration, he struck off through the unexplored regions nearer the coast, directly across the river valleys and their intervening ranges, and, as might have been expected, after building three or four hundred miles of line, found himself and his telegraph inextricably involved among impassable mountains; whereupon, taking the shortest way out of the difficulty, he promptly resigned and left the country. This closes the record of the work on the American division during the past year. We are unable to learn that any construction has yet been done on the Siberian side beyond getting out poles at one or two points.

We do not profess to be sufficiently acquainted with the affairs of the company to point out where the blame in the management, or want of management, of this enterprise rests. We only judge from the results, having carefully watched the whole history of the enterprise as it has appeared from time to time in the columns of this and other journals. After the expenditure of two years' time, and three millions of dollars in money, all the company has to show for it—in addition to the vessels, supplies, and material on hand, possibly amounting to half that sum—is about seven hundred miles of telegraph of very ordinary construction, between three and four hundred of which is along a first-class wagon road, and the remainder through a country where transportation is by no means difficult.

We understand that at the recent meeting of the directors of the company it was determined to send commissioners to the Russian Government to induce them, if possible, to complete the Asiatic portion of the line, in which event the Western Union Company will undertake to meet them near Behring Strait. It is not improbable that the Russian Government will accede to this proposition, but we venture to predict that the attention of the Western Union Company will be devoted more particularly to "saving the pieces" of the present undertaking than to engaging in any further extension of their lines in the direction of the North Pole.

The financial management of the enterprise has called out a great amount of inquiry and comment, of late, especially among the stockholders of the Western Union lines who did not see fit to invest in the Russian Extension speculation.

In May, 1866, by order of the Board of Directors, a pamphlet was issued to the stockholders of the company giving a statement of the organization and progress of the Extension Telegraph Line, and setting forth in the most glowing colors the prospects of the speedy completion of the line. It says: "With the means and forces now employed, and positive instructions to our Engineer-in-Chief to push the works to completion with the greatest energy and without delay, it is confidently expected that the line will be open and ready for the regular transmission of messages during the year 1867 at farthest, probably during the year 1866. It is considered that one more call of five per cent will complete the construction of the line; but in no event can more than from five to ten per cent be required under any circumstances."

Up to the fifteenth of September, 1866, twenty-five per cent of the capital stock had been called in. At this

time a circular was issued by the Executive Committee to the Extension stockholders, calling attention to the resolution passed by the Board of Directors on that day, making a further call of five per cent on the stock, and authorizing them at any time previous to February 1st, 1867, to receive in exchange for their stock coupon bonds of the Western Union Company at the rate of one dollar of such bonds for each ninety cents of the amount paid in on the stock, together with eight per cent on the portion paid previous to September 16th, 1866, in lieu of interest. These bonds are to become due November 1st, 1875, drawing interest at seven per cent per annum. A similar proposition was made to the holders of the paid-up or unassessable stock. Accordingly, nearly all the Extension stock was exchanged for Western Union bonds previous to February 1st, 1867.

While this exchange was going on, the public were led to believe, by means of occasional paragraphs in the newspapers, that the scheme was an undoubted success—that the whole route had been explored and found perfectly feasible; and one statement was published in the New-York dailies, only a few weeks since, that the entire American portion of the line was completed to Behring Strait. It would, perhaps, be too much to assert that these manifestly false statements were published at the instigation of interested parties, but the fact that they were never corrected or contradicted has a somewhat suspicious appearance.

Immediately after the stock—the greater portion of which were held by the Board of Directors—had been thus secured upon the property of the original Western Union Company, the Russian-Extension project was precipitately abandoned. To say the least, this must look to the original stockholders who were not interested in the Extension Line—like remarkably sharp practice.

It will be, however, a matter of the utmost mortification and regret among Americans in every part of the world that this great enterprise, which they have always looked upon with pardonable national pride, as one of a magnitude and boldness exceeding even that of the Atlantic Telegraph, should so suddenly collapse, with scarcely a moment's warning. It will be many years before our British cousins, in the pride of their successful achievement in uniting the two continents, will allow us to hear the last of that magnificent *fiasco*—the Collins Overland Telegraph.

Yet we hope that the American people, and more especially those of our own profession, will not forget to honor their brave countrymen who have endured hardships, suffering, and even death itself, while endeavoring to carry out the great work on which they were engaged. It is with admiration and pride that we read the thrilling narratives of those intrepid explorers who have penetrated the wilds of New-Caledonia and the frozen wastes of Siberia, far beyond the trail of the hardy trapper or fur-trader of the North, lying down at night, with no roof above them but the dark blue Polar sky, dreaming of the loved ones at home, while, perchance, the grim phantoms of starvation and death were following close upon their track. We can scarcely realize when we think of these things that many of them are our own comrades, taken from the office and the operator's desk; and we cannot close without expressing the hope that although their labors have been seemingly in vain, the company which they have served so faithfully will not fail to provide for them in an honorable and liberal manner after their return.

The Western Union Company still continues to charge for the date on all messages turned over to their offices from competing lines. We should be pleased to learn that some one of the opposition companies had determined to test the legality of these exactions. In Massachusetts, Connecticut, Pennsylvania, and other States, there are special enactments against any telegraph com-

pany making discriminating rules in their charges for the transmission of dispatches, and there can be no doubt that an appeal to the courts would result in the decision that telegraph companies shall transmit business for each other at the same rates charged private customers.

The W. U. Co. seems to be managed with an entire disregard of all moral and legal obligations, and nothing but compulsion will bring them to evince a decent respect for the rights of others.

SPECIAL NOTICE.—Any person having remitted us, and failing to receive the paper, by furnishing proof of the same, will have the paper sent to their address for the length of time for which the subscription was intended to be made.

To insure safety, money should always, if possible, be remitted by Post-office orders.

We would give notice that our edition of No. 46 is entirely exhausted. We hope to procure enough numbers, however, to supply regular subscribers.

Personal.

WILL somebody please inform us who is the Director of the Pittsburg District?

WANTED.—The address of Mr. Foster, formerly of Oil City, Pa., Office.

WANTED.—The address of D. A. Short, late of Kane, and Adamsville, Pa.

R. W. Pork, has resigned his position as station agent and operator, at Pittsfield, Mass. (Housatonic R. R.)

MR. WILLIAM E. KETTLES, of Fall River, Mass., extensively known as one of the finest telegraph operators in the country, and by many considered the "champion telegrapher," was not a little amused the other day by a fellow lightning-picker of the Quaker City propounding for his solution a conundrum, to which he gives publicity, notwithstanding the joke is at his own expense. He was asked, "Why Bridget in the kitchen is the best telegrapher in the United States?" and upon giving it up was informed that she was so because she wiped out kettles. To which reply Mr. K. could only ejaculate, "personal, but correct."

The Ithaca *Journal* says Hon. Ezra Cornell is about to build a Lockport limestone residence in that place, to be the most elegant and complete residence in Western New-York.

MR. E. B. WASHBURN, the originator of the Government Telegraph Bill, is now in Europe. Notwithstanding the adverse report of the House Post-office Committee upon the scheme, Mr. Washburn intends, after his return, to give the matter the closest attention in the Fortieth Congress.

MILTON GRAFFLY, an operator at Lansdale, Pa., met with a terrible accident recently, by the explosion of a bottle containing some chemical mixture which he was preparing. The contents, consisting of nitric acid and other violent ingredients, was thrown into his face and upon his body. It is thought by the physicians that his right eye is entirely destroyed.

The death of Sir William Snow Harris, F. R. S., an eminent English electrician, is announced. He was seventy-six years of age.

GEORGE A. ELLSWORTH, who was telegraph operator for the rebel John Morgan during the war, and who killed James Smithers at Sharpsburg, Ky., was arrested near Lexington a few days since. He was on a spree at the time of the murder, and quarreling with Smithers about the price of a bottle of whisky, drew a revolver and shot him in the back. Ellsworth was employed in the W. U. Telegraph Office at Cincinnati last spring.

ALBANY, Feb. 15, 1867.

The charges pending against H. S. Upson have been satisfactorily answered, and he is reinstated.

S. C. Rice, D. D.

An operator at Evansville, Ind., named Charley Johnson, narrowly escaped with his life while trying to cross the Ohio River on the ice a few days since. The ice proving too weak to bear him, he was obliged to support himself in the water with an oar and break his way through the ice. He reached the shore in an exhausted condition, only by the most superhuman exertions.

We learn that W. P. Westervelt, Superintendent of the Insulated Lines Telegraph Company, has tendered his resignation, which has been accepted.

THE house of Cambridge Livingston, Esq., late Secretary of the American Telegraph Company, was saved from burglars one night about two weeks since by means of Holmes' electro-magnetic burglar alarm.

MR. W. H. R. KELTY, having retired from the grocery business, has assumed charge of the Western Union Telegraph at Frederik, Md. The universal satisfaction which Mr. Kelty renders in every position in which he comes in contact with the public, will render this appointment very popular.

GEORGE H. GRACE, Manager of the New-York Office Insulated Lines, has been appointed Acting Superintendent, vice Westervelt, resigned.

JOSEPH A. DEXLER has been appointed day operator at the central station of the Fire Alarm Telegraph, Pittsburgh, Pa.

G. C. FULLER, a member in good standing of Corry District, has withdrawn from the Union and the profession to engage in other business.

HARRY ABEL, who has for many years been connected with the Pittsburg Office of the W. U. Company, has resigned in consequence of ill health.

MR. LITTLEJOHN introduced a bill into the Assembly providing that any company establishing telegraphic communication between the United States and Europe, may lay cables in any of the harbors or wharves, inlets, towns, or cities, in this State.

MR. CYRUS W. FIELD sailed a few days since for England. He goes out on the business of the Newfoundland Telegraph Company, to order a submarine cable from Placentia Bay to Sydney in Cape Breton, or to some point nearer on the coast, where it will meet the Western Union lines, thus saving the risk of the long land lines in Newfoundland. These lines, however, are to be kept up, and as soon as spring opens a new line is to be built over the old road cut through the forests by the Newfoundland Company ten or twelve years ago. There will then be three perfect lines, which should prevent any failure hereafter in the prompt transmission of news. With these improved land lines, and the new submarine cable to Cape Breton, the chain of electric communication with Europe will be complete.

MR. JAS. D. RIDD, formerly Superintendent of the N. Y., A. & B. lines, and more recently Secretary of the U. S. Telegraph Co., has recently taken a position in the Executive Department of the W. U. Co. in this city.

SIR R. A. GLASS, it is said, will soon retire from the management of the Atlantic Telegraph Co. Whether as broken Glass or not we are not informed.

WM. GIBSON, formerly night operator, has been appointed day operator at Amboy, Ill. (F. C. R. R.), vice Robt. Whyte, transferred to Dunleith. W. Fred. Barlow has accepted situation as night operator, vice Gibson promoted. C. S. Miller, Manager same office, has been appointed train dispatcher.

It may be of interest to the friends of W. H. Kelsey and W. A. Walker to know that the former was at Plover Bay, New-Siberia, and the latter had gone to Russian America. Also, that the renowned Joe Pierce, of the Potomac fame, is with Mr. Kelsey, the same philosophical covey as ever. So says a letter dated Sept. 22d.

Patent Claims

ISSUED FOR THE WEEK ENDING FEB. 19, 1867.

62,125.—APPARATUS FOR LIGHTING GAS BY ELECTRICITY.—
Samuel Gardiner, Jun., New-York city:

I claim, 1st. The arrangement upon a bar of a series of keys so placed in reference to the burners as to be consecutively brought into electric connection therewith by a single impulse, substantially as described.

2d. A sliding bar with an insulating support and furnished with keys adapted to a series of gas-burners, for the purpose described.

62,141.—TELEGRAPHING APPARATUS.—J. J. E. Lenoir, Paris, France:

I claim, 1st. The revolving rollers, H and H', in combination with the revolving screws, F, F', traversing frames, I, I', their magnets, K, K', levers, J, J', and armatures, e, e', the whole being constructed, arranged, and operating as described.

2d. The shafts, G, G', and their rollers, H, H', screws, F, F', frames, I, I', magnets, k, k', and levers, J, J', in combination with the trains of wheels, E, E, or the equivalent to the same, the whole being arranged and operating substantially as and for the purpose set forth.

3d. A sheet of transfer paper and a sheet of plain paper combined with the roller, H, and arranged to be operated on substantially as and for the purpose specified.

4th. The combination of a receiving roller or holder, H', having an inked surface, a lever or pencil, J', and a sheet of transparent paper, or its equivalent, for the purpose described.

5th. The magnets, O, O', connected electrically with each other and the arms, I, I, in combination with two instruments, A, B, when the latter are constructed and operate together as described.

6th. The shaft, L, with its disk, N, and the shaft, L', with the arms, q, q, in combination with the driving mechanism of two instruments, A and B, and with the arms, f, and the electro-magnet, P, the whole being constructed and operating substantially as and for the purpose set forth.

62,236.—COMPOUND FOR COATING AND INSULATING TELEGRAPH WIRES.—R. Sands Tucker, Brooklyn, N. Y.:

I claim my application of glass finely ground or pulverized, and mixed or incorporated with linseed oil, tar, or other oleaginous and resinous substances to insulate metallic wires or conductors in telegraph cables.

QUOTATIONS OF TELEGRAPH STOCK.—Western Union, \$100 shares, 41½; Bankers' & Brokers', \$25 shares, bid 5; Franklin, \$100 shares, 20; Insulated, \$100, 3 bid 5; Montreal, none offering, bid 134.

The first submarine cable insulated with gutta-percha was made in 1847, by Samuel T. Armstrong and Lorenzo Higgins, for the Magnetic Telegraph Company. It was composed of No. 9 iron wire, with an insulating coating of gutta-percha half an inch in diameter, and was laid across the Hudson River by Thomas M. Clark and John W. Norton.

The plan, now almost universal, of covering the helices of the electro-magnets of telegraph instruments with a case of vulcanized rubber, was first introduced by Mr. G. M. Phelps, upon the printing instrument, about the year 1858.

Born.

In this city, Feb. 28, a daughter to M. K. Thompson.

Married.

In Bound Brook, N. J., Feb. 18, by Rev. C. R. Snyder, Mr. Wm. H. Gay, of the Insulated Telegraph Lines, to Miss Phelena C. Cole, of Bound Brook.

In Hamilton, C. W., on the 12th ult., by the Rev. A. B. Simpson, Mr. George H. Hills, assistant operator Provincial Telegraph, to Miss Mary A. Barr, both of Hamilton.

At Washington, D. C., Tuesday March 12th, at the residence of the bride's father, by the Rev. Dr. Holmead, rector of Grace Church, William J. Bodell, operator at Fortress Monroe, Va., to Anna, daughter of Mr. Arthur Yeatman.

Died.

In Huntsville, Ala., Jan. 19, 1867, D. B. Tomlinson, formerly in the employ of the New-York Central Railroad Telegraph at Albany and 239 Broadway, New-York.

At Jersey City, March 5, Arthur N. Aplin, aged 31 years, formerly with the United States Telegraph Company.

The deceased was a young man of excellent qualities of mind and heart, and possessed of amiable qualities and genial humor that made him very popular among his acquaintances. He leaves a widow and one child, and numerous friends, to mourn his early decease.

PREAMBLE

TO THE

Constitution of the National Telegraphic Union.

We, Telegraphers, uniting ourselves for the purposes of mutual protection in adversity, upholding and elevating the character and standing of our profession, promoting and maintaining between ourselves and our employers just, equitable, and harmonious relations, and advancing the general interests of the fraternity; recognizing the principle that the interests of the employer and employee are identical, and firmly believing that a union among ourselves, established upon just principles, will result in manifold benefits, not only to us, but also to those who employ us, and be the means of enlarging and establishing, upon a better foundation, the peculiar business to which we look for our support, with the hope that our endeavors will merit the commendation of all good men, and draw down upon our undertaking the benign influence of our Creator, do hereby ordain and promulgate for our organization and future government, the following Constitution.

EXTRACTS

FROM THE CONSTITUTION AND BY-LAWS.

ARTICLE II.

SECTION I.

8. No person shall be a delegate who shall not have attained the age of twenty-one years.

4. The number of delegates shall not exceed one for the first fifty members, and one extra delegate when the exact proportion shall be twenty-five members in excess; but each District comprising *not less than fifteen* members shall be entitled to one delegate.

5. At the regular meeting, in July the District shall nominate candidates for District officers and delegates.

6. No member who is six months in arrears for dues shall be entitled to vote, or be eligible to any office, and shall not be enumerated in the basis of representation.

10. When vacancies occur in the Convention, the Director of the District in which they occur shall order an election to fill such vacancies, which election shall be conducted as provided in Clauses 5 and 6 of this Article. When this is impracticable, the Director and his Council may appoint suitable persons to fill the vacancies.

11. District officers and delegates shall assume the duties of their several offices at the first regular meeting after their election.

12. The expenses of the delegates shall be borne by the Union; the bills for the same to pass through the course provided by Clause 8, Sec. 1, Art. IV., of the Constitution.

SECTION II.

1. The Convention shall assemble annually on the second Wednesday in September.

ARTICLE III.

SECTION I.

1. The general officers shall constitute an Executive Committee, whose duty it shall be to attend to the proper execution of this Constitution; decide all matters in dispute concerning the interpretation of the Constitution, or between the different subordinate organizations; and attend to such other matters as the interests of the Union may require.

ARTICLE IV.

SECTION I.

6. It shall be the duty of the District Director to call District meetings; preside over all such meetings; declare the result of all District elections; decide all local questions referred to his decision; keep a record of all members admitted to the Union within his District; represent the District in all cases affecting the National Organization, except when special delegates are chosen for that purpose; attend to the distribution throughout his District of all papers, documents, or publications issued by the Union or District; and superintend at all times the affairs of his District. He shall appoint a council or committee of two to assist him in the discharge of his duties, and to consult with in cases requiring his decision or arbitration.

7. It shall be the duty of the District Secretary to keep a record of all proceedings at every meeting of the District, and to issue all notices and summons. He shall keep a list of all officers and members of the District. He shall be the custodian of, and shall be held responsible for, all the documents, books, papers, and supplies of the District. He shall be required to notify all members of their election to fill any District office, and any person of his election to membership.

He shall also perform the duties imposed upon him by the District By-Laws and the District.

8. It shall be the duty of the District Treasurer to collect all moneys due the Union from his District, and forward the same, quarterly, with a report to the Treasurer of the Union.

Before entering upon the duties of his office, the District Treasurer shall give an obligation or bond to the

Union, with at least two responsible securities, each in the sum of fifty dollars, and himself in a like amount.

He shall report monthly to the District the names of all members in arrears for dues, together with the amount of their indebtedness.

He shall keep a book in which shall be recorded the name of each member of the District in such manner as to show when he was admitted, paid the full amount of his dues, was suspended or expelled, withdrew or died, which book shall be the register of the District. He shall also perform the duties imposed upon him by the District By-Laws and by the District.

ARTICLE V.

SECTION I.

1. The President may submit any question that he may deem necessary to the members of the Convention separately, by telegraph or in writing, and upon the receipt of their votes thereon, declare the decision of the Convention, and notify the Recording Secretary accordingly; and such action of the Convention shall be as binding upon the Union as any adopted at a meeting of the Convention.

ARTICLE VI.

SECTION I.

1. No person shall be admitted to membership in this Union who has not attained to the age of eighteen years, who does not bear a good moral character, or who shall be so disabled by bodily infirmity as to be unable to perform the ordinary duties of his position, or who is not a operator of at least three years' experience.

2. Application for membership shall be made to the Director of the District in which the applicant resides.

3. Upon the receipt of such application, the Director shall refer the same to a committee of three, who shall institute a rigid investigation as to the qualifications and character of the applicant, and report at the next regular meeting of the District, or as soon thereafter as practicable; and, if the report be favorable, he shall be balloted for, and, two-thirds of all the members present voting in his favor, he shall be declared duly elected.

4. No application for membership shall be considered unless accompanied by the admission fee. In case the applicant be rejected the fee shall be returned to him.

SECTION II.

1. Operators of experience, engaged in other business to the exclusion of telegraphy, may be admitted as honorary members of the Union, on the payment to the District Treasurer of the sum of ten dollars, as an initiatory fee. They shall not be subject to assessments of any description, and shall have no claims on the Treasury of the Union. They shall be admitted in the same manner as other members, and shall have the privilege of attending District meetings, and may speak upon any subject that may come before such meetings, but they shall not be entitled to vote.

ARTICLE VII.

SECTION I.

1. If any member shall refuse or neglect to pay his indebtedness to the Union or District for a period of six months, he shall be suspended, and if he still refuse or neglect, after nine months, he shall be expelled.

2. Any person expelled from the Union by failure to pay his dues for a period of nine months may be readmitted by the payment of all sums due at the time of expulsion, together with the amount which would have accrued up to the time of readmission, had he continued a member.

3. In all cases where a member has been notified by the District Treasurer that he is in arrears, it shall be considered that he has received sufficient notice.

SECTION II.

1. All charges against members of the Union must be made in writing to the District Director, who shall appoint a committee to investigate the matter.

2. The committee shall, after charges have been submitted to them, notify the accused that charges are pending, and he shall have one month from the date of such notice to rebut such charges, after which time the District may dispose of the case as two-thirds of the members present may determine.

3. Any member who may be suspended or expelled by a District, may, within one month from the date of suspension or expulsion, appeal to the Executive Committee, whose decision shall be final.

4. The District Director shall notify all other Districts of the suspension or expulsion of members, with the cause therefor.

ARTICLE VIII.

SECTION I.

1. When any member shall become incapacitated for the performance of his duties, by sickness, or accident, that does not proceed from immoral conduct, he shall be entitled to receive the sum of six dollars per week, after the first week, until his malady or accident terminate in restoration or death.

2. Any member desiring such assistance shall make application to his Director, who, with his Council, shall investigate and decide upon the application, and, if approved, report the same to the President, who shall, if he entertain the application, order its immediate payment.

ARTICLE IX.

SECTION I.

1. Five or more operators, qualified for membership, may constitute a District, and determine the location of its headquarters.

2. All members of the Union must belong to the District of which the headquarters are in, or nearest to the place where they are employed.

ARTICLE X.

SECTION I.

1. The fee for admission into this Union shall be five dollars, which will entitle the member to a certificate of membership, to be issued by the District Director.

2. In addition to the initiation fee, each member shall pay into the treasury the sum of six dollars per year, to be collected by the District Treasurer monthly or quarterly, in advance, as the District may deem advisable.

3. When a member changes his place of residence beyond the District in which he is enrolled, he shall be entitled to a Certificate of Transfer upon the payment of all dues accruing to the date of such transfer, signed by the Director and Secretary of the District.

4. Any member in good standing, who may desire to withdraw from the Union, shall, upon written application, delivery of his Certificate of Membership to the Director, and payment of all indebtedness, receive from the Union a certificate of honorable withdrawal, signed by the President and Recording Secretary; which certificate, whenever presented to the Director of any District, shall entitle him to full membership in this Union.

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THE TELEGRAPHER is published in New-York, on the first and fifteenth of every month, and besides matters of associate interest, is devoted to the interests of telegraphers all over the world, and will contain telegraphic information from all parts of the globe.

It is not confined to any one policy, but will seek to correct abuses, give honor and praise wherever and whenever due, and endeavor to elevate the standard of operators, both morally and scientifically.

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All other appliances made to order. Extra spools for replacing such as may be spoiled by lightning, furnished at \$1.25 each. Old spools taken at the price of new wire by the pound. Goods sent to all parts of the continent with bill C. O. D.

Aside from the advantages apparent upon inspection of these magnets, their acknowledged merits consist in the construction of the *Aelix*, which was patented Aug. 15th, 1865. This being of naked copper wire, so wound that the convolutions are separated from each other by a regular and uniform space of the 1-600th to the 1-800th of an inch, the layers separated by thin paper. In helices of silk insulated wire the space occupied by the silk is the 1-150th to the 1-800th of an inch; therefore a spool made of a given length and size of naked wire will be smaller and will contain many more convolutions around the core than one of silk insulated wire, and will make a proportionately stronger magnet, while the resistance will be the same.

I therefore cordially invite Mr. S. F. Day to produce one of his very best \$30 magnets, and let its resistance be measured by the *aneriodometer* and I will pledge myself to make one of same resistance, in rosewood, finely polished, at \$17, which shall work in the same line against resistance and escape when his will not give a dot.

L. BRADLEY.

DESIGNED FOR THE USE OF

BEGINNERS.

CONTENTS.

Electro-Magnetic Telegraph; description and directions for using the Grove Battery; Amalgamation; to make up a battery; Carbon Battery, with directions for its use; Local Battery, with directions for making it up; Battery connections; Lightning Arrester; Telegraph instrument; Connection to form the main circuit; Connections to form the local circuits; Explanations of the numbers given to different parts of the instrument, to facilitate the forming of the connections; Adjustment; The Morse Telegraph Alphabet.

ILLUSTRATIONS.

The Grove Battery in its parts and in connection; The Local Battery in its parts and in connection; Lightning Arrester; Main and Local Batteries, Relay, Register, Key, and Lightning Arrester, with their several connections for forming the Main and Local circuits for working a line.

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W. O. LEWIS,

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THE

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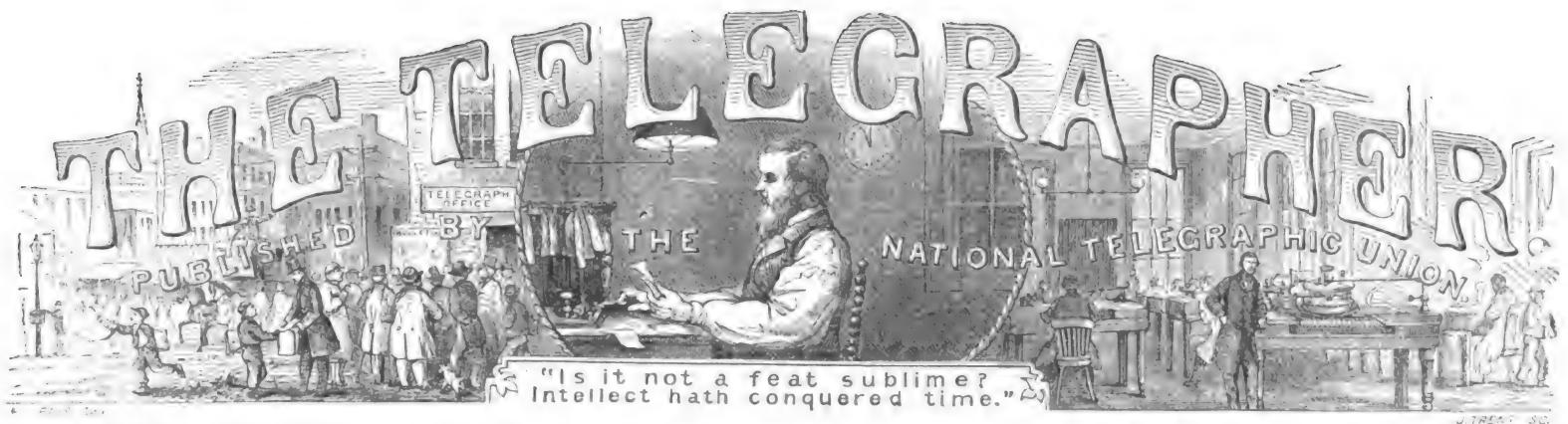
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42 CLIFF STREET.

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P. L. MOEN, Treas.

W. E. RICE, Sec.



Vol. III.

New-York, Monday, April 15, 1867.

No. 50.

Comparative Tests of Telegraph Insulators.

OFFICE SUPT. POLICE AND FIRE ALARM TEL.,
N. W. COR. FIFTH AND CHESTNUT STS.,
PHILADELPHIA, Jan. 30, 1867.

DR. C. M. CRESSON:

MY DEAR SIR:—I send herewith perfect specimens of insulators of their kind, labeled and numbered as they are known. Will you in your own way examine and report the resistance qualities of these insulators, and otherwise give such information as will help me to form an opinion of their merits?

I am, very truly yours,

W. J. PHILLIPS,
Supt. Police and Fire Alarm Telegraph.

not disintegrate or crack when subjected to changes of heat and cold, or dry or moist atmosphere; it should also be of such form as shall shed the weather, and be easily removed or replaced.

Among all the materials commonly employed as non-conductors of galvanic electricity, very little difference is observable in their conducting power when in a dry condition. Dry wood, glass, vulcanized rubber, pottery, or any substance free from the intermixture of metals or their oxides, give equally good results when dry. It is only when the great enemy of insulation—water—is present that these bodies become in a greater or less degree conductors.

Excluding those substances the pores of which are too

conductor of heat, otherwise changes of temperature from cold to warm, even when unaccompanied by rain or fog, would cause a deposition of moisture upon the insulator, including that portion of the surface which from peculiarity of form is protected from the direct action of rain.

This condition gives rise to want of insulation in the worst form. Glass and porcelain are more liable to loss of insulation from this cause than any other materials in common use. If the surface of the body is of such nature as will not allow of its being wetted readily, then the objections on account of the deposit of moisture from good conduction of heat are much modified.

This repellent nature or property prevents the moisture

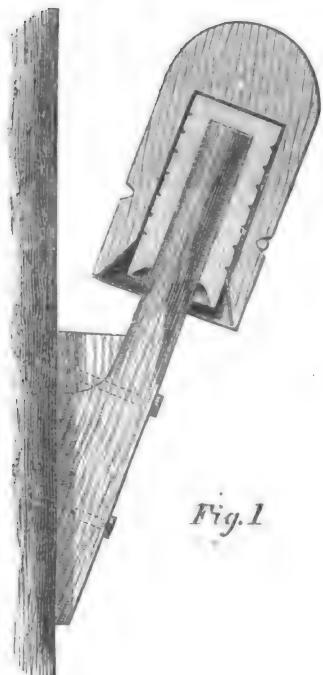


Fig. 1

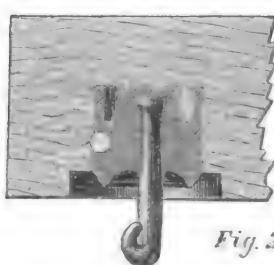


Fig. 2

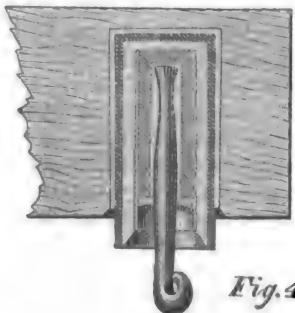


Fig. 4

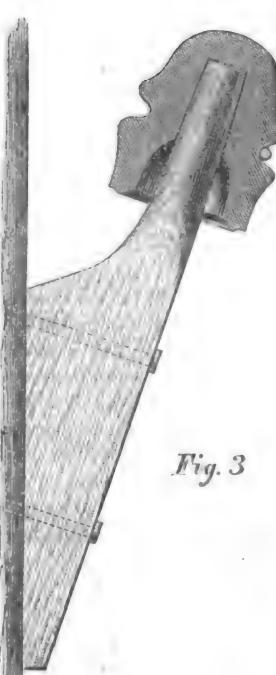


Fig. 3

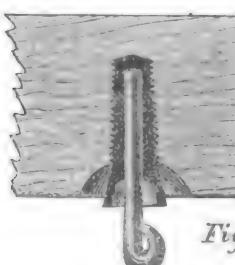


Fig. 5



Fig. 6

No. 417 WALNUT ST., PHILADELPHIA,
March 16, 1867.

WM. J. PHILLIPS, Supt. Police and Fire Alarm Tel.:

DEAR SIR:—In accordance with your request of Jan. 30, I have made experimental trials upon the comparative value of the several forms of insulators in common use upon the telegraph lines of this country and in Europe, samples of which you sent to me, and in the course of the investigation have subjected them to various tests, and made such an examination as to show wherein they differed in usefulness, and the reasons for such difference.

The requisites for a good telegraphic line insulator may be summed up as follows: It should be a non-conductor of electricity, and a non-absorbent of moisture, with a surface free from pores or cracks; it should be a bad conductor of heat, and composed of a substance not capable of being wetted, and which shall be durable, and

minute to be appreciable, such as glass and hard rubber, all of the others may be tabulated in the order of their capacity for the absorption of moisture, classing those as best which take up the least weight of water when soaked for a given time, such as China-ware, pottery and wood. Next in importance it is necessary that the insulating medium be free from surface fissures into which water may be drawn or retained by capillary attraction.

To this objection all of the materials ordinarily employed are liable, even glass and hard rubber* soon yield to atmospheric influences and become filled with innumerable fine surface cracks or crevices from which it is almost impossible to remove the water otherwise than by artificial heat. The insulating body should be a bad con-

ductor of heat, otherwise changes of temperature from cold to warm, even when unaccompanied by rain or fog, would cause a deposition of moisture upon the insulator, including that portion of the surface which from peculiarity of form is protected from the direct action of rain. This condition gives rise to want of insulation in the worst form. Glass and porcelain are more liable to loss of insulation from this cause than any other materials in common use. If the surface of the body is of such nature as will not allow of its being wetted readily, then the objections on account of the deposit of moisture from good conduction of heat are much modified. This repellent nature or property prevents the moisture

* The surface of hard rubber becomes porous after exposure in consequence of the sulphur being given off to the atmosphere.—Ed.

terposition of substances so prepared as to fulfill all of the prescribed conditions.

The form of the insulator should be such as to secure a complete horizontal zone from contact with rain or snow. This is most readily done by a system of shedding or overhanging so undercut that water will flow over it in such manner as to prevent its being wetted from top to bottom in a continuous path. The form should also be such as to render it easy to remove and replace the insulator when broken by violence or by atmospheric electric discharges.

The insulators sent to me as samples appear to be fair specimens and in good condition, and were as follows (the numbers were affixed for easy reference during experimentation):

No. 1.—Wade Insulator.—Wooden cover over glass on bracket.

No. 2.—Lefferts' Insulator.—Wooden block covering a glass in which the iron hook is secured in molding.

No. 3.—Glass and bracket.

No. 4.—Brooks' Insulator.—Iron case, with glass and sulphur and paraffine, with iron hook.

No. 5.—Rubber-covered screw and hook.

No. 6.—English double shed (stoneware).

The trials for leakage were made by placing them in circuit of a battery of eighty Grove cups, around the groove, and connecting the supporting bracket, hook or block to a ground-wire, with a very delicate Thermo multiplier in the circuit.

When dry all of the samples were perfect insulators, but when soaked in water for ten minutes Nos. 1 and 2 gave a leakage too great for measurement with the very delicate instrument employed, whilst Nos. 3, 5 and 6 allowed of the passage of a strong current; No. 4 alone retaining the current.

When exposed to a dry, cold atmosphere below 32° Fahrenheit for twenty-four hours, and then transferred to a warm room and exposed to a jet of steam, so as to produce a great deposit of moisture upon the insulators, Nos. 2, 3, 5 and 6 allowed strong currents to pass; but when a rain shower was included in the change from cold to a warm atmosphere, No. 1 also gave a great leakage, whilst the leakage from 2, 3, 5 and 6 was much increased; No. 4 again retaining the current.

Repeated trials made upon the whole of the samples, side by side, exposed to a continuous shower of water, gave results as follows (the comparison being made in the consumption of zinc derived from actual trials in the production of equal deflections of the astatic needle by battery power):

No. 1 (Wades'),	.	.	.	.	over	35
No. 2 (Lefferts'),	.	.	.	.	"	30
No. 3 (glass and bracket),	.	.	.	.	"	15
No. 4 (Brooks'),	.	.	.	.	less than	1
No. 5 (rubber-covered hook),	.	.	.	.	"	28
No. 6 (English),	.	.	.	.	"	16

From this it would appear that the wooden covering of Nos. 1 and 2 actually took away from the insulating powers of the inclosed glass, which glass was very similar in form to No. 3.

A close examination of Nos. 3, 5 and 6 revealed a surface full of minute pores or cracks capable of absorbing water and of retaining it.

The Brooks Insulator alone remained intact during all conditions, and it was assumed for the sake of comparison that the deflection was 1°, although the motion of the needle was too small to be read off on the scale; whilst the insertion in the circuit of No. 1 caused a deflection of over 45°. The success of the Brooks Insulator was entirely due to the use of paraffine, with which the glass and sulphur (in the different specimens presented for trial) was completely saturated, filling up all the minute pores and crevices, and rendering the surface of the insulating medium repellent of water.

Trials made with slips of porous wood and porcelain, extremely thin but saturated with paraffine, showed them

to be perfect non-conductors of electricity; also slips of the thinnest paper so treated completely prevented the passage of the current from the eighty-cup Grove battery, the poles being pressed together with a single thickness of prepared paper between them.

By proper manipulation with paraffine any of the above insulators may be made temporarily perfect; but to insure permanence it is better to adopt a form of case and block which shall combine as practically as possible the requirements for non-conduction and easy adjustment.

The Brooks Insulator, constructed with an iron case with the wire hook secured into it by glass or sulphur, and the whole thoroughly saturated with paraffine and provided with a shedding collar of porous earthenware, likewise saturated with paraffine, seems to me to combine all of the requisites for complete success.

Respectfully, CHARLES M. CRESSON.

Iron and Copper-Coated Telegraph Wire.

One of the most useful inventions that has been made in many years is that of bronzing iron with copper and its alloys. Galvanized iron is only a precipitation of zinc upon the surface mechanically. The zinc cannot permeate the iron, or form a connection that could possibly prevent a continuous galvanic current between the two metals. This current is facilitated by the acid used in divesting the iron of its oxide scale, which is not entirely driven off by heat, in the process of coating. Hence all of the elements of a strong galvanic battery remain in the finished work, and consequently the iron is injuriously affected, granulated and weakened; so much so, that it is not much better than cast-iron.

The iron covered by the procontrary copper coating process is entirely different. It is a new and original idea, as will more fully appear from the following description:

The surface of the iron is cleansed by acid, which thoroughly removes the scale and rust, and leaves the iron bright and clean, after which it is washed off in pure water. Then the iron is covered with a flux, to retain it in its cleansed state. Having been thus prepared to receive its coating, it is plunged into melted copper, that is heated in a black-lead crucible, or a furnace properly lined, to 400° Fahrenheit. The remaining acid is driven off in a volatile form. The surface of the iron being mineralized, to facilitate the surface fusion, the consequence is a perfect molecular union of the two metals, the iron being only partially fused, while the copper is brought to its highest state of fluidity, and is like the free carbon in steel. The copper is more fused than the iron, which occupies the empty spaces between its molecules, and consequently increases the tenacity, and excludes the possibility of any galvanic action between the metals.

It will, therefore, be seen that there is no electro-chemical or galvanic action existing to injure the iron coated by this process, and as a further and more positive proof of its good qualities, the iron thus coated will stand four times the hammering, bending, or twisting that galvanized iron will, and it may be submitted to a red heat without injury to the coating. The iron is softened and annealed by the process through which it passes while being coated.

For positive proof as to its durability, reference can be made to specimens described by Mr. Layard, now in the British Museum, London, taken from the ruins of Babylon and Nineveh, that have been exposed to the damp gases of decaying masses of matter for thousands of years, and are yet in a perfect state of preservation.*

As to the advantages of iron wire coated by this process for telegraphic purposes, there can be no question, as it combines the strength of iron with the superior qualities of copper as a conductor. It is particularly adapted for submarine cables, as well as many other purposes.

Samples can be seen and explanation given by applying to E. Mills, agent, 42 Broadway.

Our Union.

WHEN our society was first formed a generous welcome was offered for all operators to join our ranks, and even for a long time afterwards a mere trifling initiation fee was imposed. In thus sweeping in almost an entire class of the telegraphic fraternity, it was only natural that we should have included many disreputable persons, who were unworthy of membership in any honorable society. Many, who having brought disgrace upon the name of a telegrapher in society at large, joined our Union only in order to bring disgrace upon it. There were others also, who, from a lack of stability and a disregard for their plighted faith, allowed themselves to be ignominiously expelled in default of three or four dollars, which they were well able to pay and which they had pledged their sacred honors to make good. These two classes comprise nine-tenths of the dead-wood which has been pruned by the firm and dignified policy now being carried out by our Union. We must expect these dead branches to make a noise in their fall, but better so than be allowed to remain and sap the life of our organization by their pernicious example.

Telegraph operators are, comparatively speaking, a transient community; and some of those who are most so, frequently impose upon strangers, and compromise the honorable reputation of our calling. Now it is one of the first objects of our association to uphold and maintain the integrity of operators as a class, and this can only be accomplished by discarding the unprincipled members, in order to protect the good and worthy.

I have no sympathy, Mr. Editor, with those crawling vipers who imagine they can curry favor from an honorable employer by casting their slime upon the honest and righteous efforts for advancement of their fellow-operators. Therefore, I can shed no crocodile tears over the discharge of a few such members from the Union.

I have every reason to believe that our organization is to-day in full life and vigor, stronger and purer than ever before, and with every prospect of achieving the laudable objects we have in view. Let us work shoulder to shoulder in the cause of our advancement, confident in the right and ready to spurn the wrong, wherever we may find it.

A MEMBER.

Waifs.

THERE are many "waifs" from the daily experience of most of the "devotees of the magic spark" that, if repeated, would serve to make us all better acquainted with nine-tenths of humanity than we are now. Some of them are "rich, rare, and racy;" and this *sauce piquant* should be "passed around." Queer phases in the character of the *genus homo* pass under the eyes of the close observer, and "Notes of a Telegrapher" would, I imagine, present a very respectable contrast to those "of a pianist," who fizzled out "flat." Several that occur to me I jot down for you, sure that though they may lack the spice of personality, any of the "N. U." can supply the deficiency.

A queer specimen of the Teutonic persuasion hobbled into my office some time since, and placing several pieces of silver currency on the counter, muttered, with a peculiar *sang froid*, "It ish fordy zends." Yes, so I perceived; but considered the inquiry necessary: "Is this in payment of a message, sir?" "Yaa, Strobelzinskink," with imperturbable gravity. "Don't understand. Did you send a message to-day, and was it charged at this office?" At this the worthy German appeared from behind a huge pipe and sundry clouds of smoke, with an astonished stare at my stupidity, and ejaculated: "Vy, no! I sends him; you writes him; I pays you. See ne-ow, eh?" and his mouth contracted complacently. I began to, at least, and ventured: "Oh, you want me to

* See Appendix, page 670 (Note 3), of Layard's Discoveries.

write one for you!" and I took up a clip. "Well!" interrogatively. "Vall!" he reiterated, impatiently, "you sends him to Strobel, Zinn & Klink, L——, and tells 'em to send me some beer so quick as you can." By this time I had arrived at the signature, and replied: "And whose name shall I sign?" This was the "last straw" evidently, and the camel's back broke with an exasperated "Der Laudr! why you puts me down? Don't you know me? Vy, Seger—George Seger!" I apologized then for my apparent forgetfulness, and, apparently mollified, exultant Seger. Upon inquiry I found that Mr. Seger was in the habit for years (previous to my entering the office) to transact his business in the laconic style that aroused my inquiries. He was of an opinion that "the telegraph" was a system of legerdemain in regard to universal knowledge, and was expected to know everything, even to the number of kegs of beer per day required by his customers. I afterwards grew habituated to his manner, and with an adroit query to "13" his "It ish furdy zends!"

This popular ignorance of the mass in regard to "the art" was amusingly demonstrated at another time by a trio of unbleached Americans, who fluttered, after a consultation at the door, up to the window, and queried: "Please, could these ignowamuses look at the telamgaff, ki?" "Certainly," I answered, busy in checking some messages, and pointing to an instrument, "that's it." Then hurriedly naming over, with a slight indication towards each, the different parts, as "magnet," "sounder," "key," etc., and that "when I use key so it so sounds as you hear it there;" and confident that his stock of information was about of the same ratio as before, I returned to my occupation as Cuffee's eyes were dilating, and having concluded, and finding circuit vacant, disposed of them, and filed them away; but not before I discovered, to my infinite merriment, from their whisperings as they grew audible, that a memoranda slip poised carelessly between the helices of the magnet was supposed to be a message on the point of starting, and that some species of clock-work was necessary for its transmission, and that I was "winding the machine," for "don't you see um turnin' de key? See dat now."

A propos, as I strolled by several urchins lounging on a bridge, on their way from their base-ball grounds, I observed one of them tapping carelessly with his bat against the wires that were insulated along the railing, whilst another called out, with a laughable show of consequential authority: "I say, quit that! don't you know you'll knock the messages off?"

I will conclude with a message once delivered to the messenger addressed to "Stickle & Gister." Could not find, and a G. B. A. brought the correction "Stickle Register. Guess you'll find him at court-house." Which was probably the case, as I never heard anything more about it. "73."

O. P. ERATOR.

York, Pa., 1867.

A Day Among the Humbugs.

[For THE TELEGRAPHER.]

A NOTICEABLE feature of Chicago, to a telegrapher, is the abundance of "telegraph colleges." Down in the heart of the city, on the large blocks, immense sign-boards stare one in the face, with the words, so-and-so's "Telegraph College," in letters of various colors, and of such an ambitious size as to make one wonder whether the sign belongs to the building or the building to the sign. They are situated in the vicinity of the court-house, where the network of wire belonging to the city Fire Alarm Telegraph centers, a very clever dodge for the purpose of conveying to the uninitiated the impression that these wires are a part of the facilities of the aforesaid colleges.

A couple of night-owls belonging to the fraternity in this city resolved themselves into a committee of two, to explore the mysterious regions covered by these signs.

Knowing that these institutions flourish on sign-painters

and printer's ink, we thought the most promising subject for study as a representation of the class must be the one which displays the largest quantity of paint and ink. We accordingly started for PORTER'S TELEGRAPH COLLEGE. We found this situated in the sky-parlor of a small tower, ornamenting the corner of a building adjoining the Chamber of Commerce, where the Bulls and Bears cheat, beat and corner one another on corn. Rather a dubious neighborhood, but Porter is (about six stories) above such low cheating. Following the "hand-writing on the wall," we wound our weary way to the tower aforesaid, and after recovering sufficient wind to trust our voices, modestly knocked at the door. It was opened by a gentleman in black, whose eyes twinkled as he invited two supposed victims to "walk into his parlor," and whose mind was evidently engaged in deducting from the eighty dollars we were to pay him the few cents necessary to keep us in stationery and converting the remainder into board, at ten dollars per week. His terms were "Forty dollars for a life scholarship, and I furnish the stationery," as he informed us.

A rapid survey of the room showed us a few tables on which were keys and "pony" sounders, two or three pine posts in a line down the room, with single cross-arms, *a la* telegraph, which supported a system of diminutive copper wires, centering at a hole in the wall, where they were lost in a cupboard-full of local batteries. This, "only this and nothing more," was "Porter's City Telegraph" and "Porter's Telegraph College" combined. A gold-leaf sign hung at the head of the room displayed the magic name, E. PAYSON PORTER, GENERAL SUPERINTENDENT," and Mr. P. eyed it, and looked around upon his college and his students with the air of a man who is "monarch of all he surveys."

Sitting at the table were eight or ten students, some with circulars or newspapers in their hands and pecking away at the keys, and others with pens trying to copy what the others "sent." Their way of copying by sound was somewhat original. A letter was first whispered across the table, then three or four attempts made to send it on the key, by which time the "receiver" had managed to get it down, and the next letter was proceeded with. One very large student, with the necessary muscle for a first-class farmer, who had eyed us compassionately as we entered, was trying to astonish us by his skill in sending—and he did it. His motions illustrated to us the truth of Dun-dreary's conundrum as to why a dog wags his tail, by showing the reverse application of the principle. With his eye on a circular and his right hand on the key, he tried to make the letter "a." His toes worked, his mouth twitched, and he underwent a general bodily convulsion, but his key did not move. The tail was stronger than the dog.

We asked Mr. Porter how long it would take us to become first-class operators. He replied that he was accustomed to devote half a day to teaching the use of paper, but that it would take three months to make us first-class sound operators.

We listened with the deepest attention while he discanted on the beauties of telegraphy as a profession, described the thrilling interest it awakes in the bosom of every telegrapher, told how eagerly he rushed to his table in the morning, with what a tender caressing touch he handled his key and how reluctantly he left it at night to retire to the "arms of Murphy."

Then he took up the peculiar advantage of Porter's College as a place to learn this "beautiful science," as his circular terms it. His college was vastly superior to a telegraph office. One telegraph superintendent had said that "in a telegraph office one can learn only the details of telegraphy, but in Mr. Porter's College the great fact of telegraphy itself is taught." * Another superintendent had advised a young man who applied to him, "by no means" to "go into a telegraph office to learn, but apply to Mr. Porter at once." †

* Rankin on Porter—according to Porter.

† E. D. L. Sweet on Porter—according to Porter.

Mr. Porter explained to us that one great fault of telegraph colleges had been the great lack of actual business messages. Messages used for the practice of students were almost universally manufactured to order, and did not represent actual business transactions. It was exceedingly difficult to get actual messages; the telegraph companies regarded them as secrets of honor, and would on no account let their contents be divulged; but in his position as a superintendent of the old United States Company he had been enabled to lay in a stock (and he showed us a pile of about a thousand or fifteen hundred) of these indispensable requisites for teaching telegraphy.

In a circular which he gave us Mr. Porter says:

"Porter's City Telegraph Line connects the principal hotels, stock-yards and remote points in the city with the main telegraph offices; also connects the leading educational institutions with the telegraph college." And further on it says: "That the student entering Porter's Telegraph College may be placed on an equal footing with telegraphers in actual business, we have constructed a telegraph line through the city of Chicago, and have furnished and equipped a full complement of offices thereon, thus affording the student a practical knowledge of testing and repairing, and a paid business being transacted thereon daily, the student is enabled to familiarize himself with forms of business, office messages and parliamentary usages, common on every telegraph line."

In another part of his circular he says his principal office pole is fifty feet high, and carries fifteen wires. Some say the said pole is situated in the swamp near Calumet, and that the "Board of Practical Telegraphers and Scientific Electricians" who "conduct the examination" in climbing (see circular) repair to the location of the the pole "daily at 5 P. M." in a canoe.

Now considering that Porter's Telegraph College has not one foot of air-line in this city, does not run outside the windows of the garret in which it is located, has no charter from the city for allowing the running of wires outside of said windows, has in it nothing but local sounders and keys, that there is not even a pole belonging to it in front of the concern, is his course anything else than that of the confidence man? is not his college a swindle and a fraud? and should he not be indicted for obtaining money under false pretences? He has no connection with the stock-yards, or the hotels, or the main telegraph offices, or any other place outside the windows of the the room in which his college is located.

We inquired of Mr. Porter as to the chances of obtaining situations when once we had learned the noble art. He replied that the demand was just commencing; that new companies were springing up—one, the name of which he had forgotten was within a few miles of Chicago; he showed us an outline telegraph map, on which he traced innumerable lines that he assured us were working in the Eastern States, built by an association or company in New-York, in which the "president of this institution" was a principal stockholder.

Mr. P. then proceeded to state his peculiar advantages for procuring situations for his students. He had been a telegraph superintendent himself, and, as such, familiar with most of the superintendents in the country. He had known these gentlemen previously as an operator, but had not appreciated the charms of social intercourse with them until he became himself a superintendent. Only the other day Mr. Sheldon came rushing to the college, his hair and coat-tails streaming behind him, in search of an operator to go post-haste to Wilmington, Ill. Mr. P. dispatched immediately the farthest advanced of his students who could be prevailed upon to leave the institution, and Mr. Sheldon departed breathing benedictions on Porter's College. Then, too, the president of this institution, being a principal stockholder in the association above referred to, could insure the graduates of his college situations upon the lines of that rapidly-growing company. His graduates were now getting \$120 per

month, and there were better times coming. In fact he anticipated that the great trouble would be to keep men in the college long enough to make them finished electricians. They would be carried off by the demands of practical telegraphy as fast as they could learn the alphabet.

To sum up the advantages of this institution: A young man wishing to learn how to telegraph comes to Chicago. He pays Mr. Porter forty dollars for a scholarship in his college; he pays out in the three months he attends it at least one hundred dollars for board and necessary expenses; he loses in the time thus wasted, say thirty dollars per month; he stays around six months trying to get an office which he is totally incapable of running, say one hundred and eighty dollars more. His outlay as above considered may be summed up: 40—100—90—180—\$410. In exchange for this outlay he gets laughed at when he applies for a situation; he gets an idea that he has been swindled, and finally gets considerably indignant, as well he may!

Several of the students we saw were evidently returned soldiers, and their bounty will thus go to the dogs for nothing. They were probably induced to enter the college by the same falsehoods that were so enticingly poured into our ears under the mistaken idea that we were a couple of would-be students instead of two old operators going through a humbug.

Young men! returned soldiers! if you wish to learn telegraphing go to a telegraph office, and, if you can, get the operator to teach you. If he tells you you can become a first-class operator, it may be worth your while to stick to it and become one. If you have reason to suppose you cannot, let the business alone. You save time and make money by turning your attention to the thousand openings in agriculture, manufacturers, trade, etc., which are always to be found in America. To be a second-class operator don't pay; there are too many already. Don't imagine you are going to make a fortune as a telegraph operator. The highest salary paid in a Chicago Office is \$105 per month, and this is paid only to the oldest and best operators, who have worked many years at the business. In a telegraph office you might learn and become a first-class operator in a year or two, and you might not; one out of six do, and the other five do not; but you might as well attempt learning to swim in a pint basin as to learn telegraphing in a "commercial college." Owing to the late consolidation of all the American lines, there are at this moment lying idle hundreds of experienced and capable operators. What your own chances as graduates of a "commercial college" would be, you can judge for yourself.

Chicago, March, 1867. BIRNEY AND STARLING.

The Atlantic and Pacific Telegraph Company.

We mentioned in our last number that this company had contracted for the construction of their lines between this city and Cleveland. Although very little has been heard of them in the newspapers and otherwise, they appear to be pushing matters along with an energy that promises success. The construction of the line in this State has already commenced, a great number of poles having been got out, which are now being distributed.

The line, as contracted for, is to have thirty-eight poles to the mile, of good size, with two No. 9 galvanized wires. The insulators are to be of glass, and of large size, one on a pin at the top of the pole, and the other on a bracket in the usual way. The company claim that they will have, when completed, the best working and most durable lines in the country.

We cannot understand why this company should use No. 9 wires instead of No. 8 on their lines. Any operator who has worked on a large wire, such, for instance, as the Franklin lines between this city and Boston, cannot fail to perceive its immense advantages over smaller sized wires in wet weather.

We think, also, that the glass insulator is inferior in strength and durability, as well as insulating qualities, to

some others which are now in use. But, on the whole, this line will be far superior to the majority of telegraph lines now working in this country.

The route will be along the State roads on the east side of the Hudson River to Albany, and thence through the towns of Central New-York via Lockport to Buffalo, thence along the lake to Cleveland. A branch will also be constructed from Syracuse to Oswego.

We hope that the company will keep a close watch on the work and see that the line is built in a proper manner before accepting it. There has been quite too much sharp practice of late years in the construction of telegraph lines, and, indeed, we might mention one or two recent instances where the contractors have pocketed a large fortune, and the companies for which the lines were built have either been obliged to pay about four times its actual value for the work or to accept a line so poorly and unscientifically constructed as to be absolutely useless except in the most favorable weather.

If this company have their lines built in the thorough manner that the specifications call for, so as to be reliable at all times, they will not fail to command a large and lucrative business.

Correspondence.

To THE EDITOR OF THE TELEGRAPHER:

ALFRED H. ASKINS is the District Director (elect) of Pittsburg District.

We intend to install him some of these days, when we are able to get a quorum, something that has not happened for over six months.

SQUIDS.

Pittsburg, March 21, 1867.

To THE EDITOR OF THE TELEGRAPHER:

I HAVE been constrained to say a few words on the subject of the Telegraphic Union. I consider the present time one of vital importance, and one which should interest all operators as a class. The interest of every operator is at stake. We, as a class, have banded ourselves together for the purpose of material protection and improvement, and for the further advancement of the art of telegraphing, theoretically as well as practically. Much good has been done during the past three years, and a new impetus has been given to the work, and a deep interest has manifested itself throughout the entire country. In the language of another they have felt and said: "The Union must and shall be preserved." But what are we doing at the present time towards furthering the interests of the Union? Do we show the same zeal, the same interest we felt two years ago? I fear not. Are we still adding to the ranks, or are we decreasing, both in spirit and numbers? In almost every paper I see names of expelled for non-payment of dues or of misconduct. Do we forget we took an obligation upon ourselves when we became members of this Union? or have we laid aside these garments and donned the *new ones so lately introduced?* Shall we all withdraw, and try and let the Union stand of itself. No, never! There seems to be a relaxation, a want of energy and confidence in each other, a feeling of careless indifference as to the end in view, and an expressed action to leave the Union to meet the fate they had predicted so long since. What are the causes of this revulsion? Let each one answer for himself, but it is certainly a fact to be deplored that the enthusiasm shown in the cause at first is rapidly diminishing. Let us all, then, put forth new efforts, show new zeal, and each and all of the members work for the advancement of the cause. Let us support the cause we labored so long to organize, and prove to the entire profession that it can and will succeed. Let all who are not members become so, and those who are labor with increased interest and zeal. The crisis is close at hand, let us be ready to meet it.

New-Orleans, March, 1867.

To THE EDITOR OF THE TELEGRAPHER:

The almost universal error that is committed, not only by the craft, but by outsiders, in the pronunciation of the words *telegraphy*, *telegrapher* and *telegraphist*, leads me to suggest that you call the attention of all interested to the error, and direct them to Webster's last dictionary for the proper pronunciation of those words. It is painful to me, and doubtless is to others, to hear the first syllable so heavily accented, when it would be so much more natural, even if there was no rule for it, to accent the second syllable, as in the analogous words *geog'raphy*, *photog'rphy*, *philos'ophy*, *homœop'athy*.

Webster says *teleg'rphy*, *telegraph'ic*, *tele'rphist*. He omits *teleg'rpher*, but the analogous words *geog'rpher* and *photog'rpher* fix its pronunciation as above.

Brother operators, don't bear so hard on the *tel*, but lean on the *leg* a little more.

C. S. J.

Albany, April 1st, 1867.

PHILADELPHIA, March 27.

To THE EDITOR OF THE TELEGRAPHER:

I HAVE seen it. It has broken upon us with all the effulgence of a summer morn, or the sun through a London fog; and light has been shed upon the dark places where hitherto we have been groping in outer darkness, without end or aim.

The weary mariner tossed on the billows of the deep blue sea (quoted), without a latitude or a longitude, or a sounding to start from, would hail with delight an offer to relieve him of all future responsibility and guide the ship into port. Such a one is Borst.

How euphonious the name! How like unto a bucket of soap-suds against a brick wall it melts upon the ear in gentlest harmony!

Of course, Mr. Editor, you will cave at once. You are the mariner I allude to. You are in a tight place; that's about where you are. The body of gentlemen who met in Baltimore were fools for electing you and "ijuts" for not electing some one else, and are now going to raise the — well, and burst this glorious Union into eternal flinders to resent the insult. One fellow says it is dead now, and offers to prove it. The cannibal! won't somebody hold him?

"God moves in a mysterious way," and the instruments whereby his wonders are performed are often very 'umble. Borst. Well. Is it derived from *burst*? What country claims him? Who is he? What is he? Who does he belong to? Is he young and blooming, or is he "an ugly old man"? Is he old enough to sleep alone? Does he take his beer regular? Couldn't we appease his wrath in that way? Can't we fix him any way in some way?

I am a little nervous, and you will excuse it. This fatal patronymic and the journal he keeps (I sincerely trust it will *keep him*) has disturbed me some. I am anxious for the fate of the Union, now that Borst has burst upon it. I was attached to the Union. I have written for it, spoken for it, supported it through good repute and evil report; and now to have the pins knocked from under me in this fell way by Borst is enough to worry any one, and I am worried. I have subscribed for your paper six months in advance. Do you think it will last that long?

I am in a quandary, and I am not alone. I like you, Mr. Editor, and the "one-horse paper" (original) you conduct. Like Gamaliel, I have sat at your feet, absorbing wisdom at every pore, and now shall I go and sit at Borst's? Is he cleanly in his person, or, like other Bohemians of that ilk, suspicious as to his shoeing? Will he deal out to his disciples good, solid pabulum, or will it be what the sailors call "flapdoodle," or the food that nourisheth fools? Shall I ask for corn and receive husks? go for wool and come back shorn? That's about the size of my quandary, and I think it rather hefty.

He has made a grave mistake in his first number. Why give a biography of Pope? Why not of the man

himself? Borst, or the editor, (is there an editor?) or some one, or something? Have the sorrows of "old dog Tray" lost their hold on the telegraphic ear, or the bad boy who tied tin kettles to little dogs tails and then sent 'em kiting? Couldn't he just as well biograph Molly Maguire, or the "Man that could never get warm"?

Then, too, the battle of Waterloo. I have seen that name before, but want it settled. Who was he? Was it a free fight, and which licked? Was the Old Guard any relation of the Corporal's, and which? You see I have to come to you for information that the cruel Borst disdains to furnish.

The lively youth who writes the Buffalo letter must put a check-rein on his imagination, or is it Borst? Don't he wish he may get the handling of that \$50,000? Why not make it \$60,000? No! no! If you want your lives insured, gents, come to me and I will skin you at less expense and more artistically! Borst, you show your hand too soon.

The cable has just cause of action against the poetaster, for liberties taken in the "pome" printed by Borst. He leads the poor thing such a dance up hill and down dale that I am fairly dizzied to keep track of it. If it followed the path laid down by the "pote," it would be tied with such knots that lightning would never get through it. We know that peace followed its laying, and is now in full blast—in Ireland, for instance. We also know that it prevented Prussia from knocking Austria into a cocked hat, and the Cretans show their lack of sense in fighting Turkey despite its soothing influence.

Would it not be a nice job to build it

"Deep down beneath the surging sea,
High o'er the mountain's crest!"

On poles, or how? I hope old Monadnoo won't catch cold from his long exposure to the weather. If he is as

—"deep as is the sea,"

what a trickly old scoundrel he must be.

The other "pomes" are venerable, and should not be turned upon the world in their old age. Have some decency, Borst, in God's name.

Our volatile friend, Warren, in his lecture totally forgets the printing instrument, which I am almost certain can do more than 25 words per minute, but then you must allow a romancer a little poetic license.

I must leave this feast of sweets, but, oh! how reluctantly. Vale Borst.

R. J. B.

NASHVILLE, Tenn., Feb. 28, 1867.

TO THE EDITOR OF THE TELEGRAPHER:

AFTER repeated efforts on the part of Mr. J. T. Joyce, former Director of this District, and more recently on the part of myself, in an endeavor to ascertain something relative to the status of the Nashville District, N. T. U., and a failure in each and every instance to elicit any information or assurances that we were on the right track to a perfect and legitimate organization. I am influenced by a desire on the part of the members (so-called), and a preference on the part of myself, to address you, and through you and the columns of THE TELEGRAPHER, the executive officers of the Union, in a hope that we may be considered as of at least momentary importance, and would no longer be debarred of the privilege, willing as we are to comply with any constitutional exactions, to take our place amongst the Districts that be. Our organization was called into existence in October last. Letters were addressed to the President and Treasurer of the Union, relative to the status of the old Nashville District, and the bearing which it would have on those of its members who should desire to connect themselves with the new. Application was made to the President for information as to our rights to a representation in the Baltimore Convention, and if such a representation would be based upon the same rights as that of other Districts, and a general desire was expressed, backed by the necessary fees of the telegraphers of this community, that we should take our place as one of the least of the Districts com-

posing the Union. No definite action was taken in our behalf at Baltimore, neither were we advised as to our rights of representation. Immediately after the adjournment of the Baltimore Convention I addressed a letter to Treasurer Whipple, with the request that he would inform me whether upon payment of fees, as required by the Constitution, a new District would be considered, and all proceedings of the old be ignored. At this time some fifteen persons had paid into our treasury the requisite funds necessary to constitute a full new membership. A portion of these were members of the old District, which was dissolved through no fault of theirs, and they were apprehensive that dues which had accumulated since such dissolution, and which they had no legitimate manner of paying, stood against them; or that they had been suspended or expelled as a consequence; they could not determine whether fees paid by such members would be credited to them as members of the old District, or be accredited to them on membership; neither could we determine, or had we a precedent for accepting such into a new organization. My appeal to the Treasurer was met with a reply, that in a few days he would furnish me with such information, with full instructions how to act in the premises. Months have intervened, and a dignified silence has been maintained. Meanwhile our treasurer has ready for transmission the accrued fees and dues, and we remain in ignorance of the right course for us to pursue. Will some member of the Executive Committee be kind enough to advise us as to whether we can legally organize as a new District, and in doing so accept into full membership such as may have belonged to the District of 1864, the existence of the old District be ignored, and such payments of dues be accredited to a new membership. We feel confident that we have the material, and it endowed with the proper spirit, to effect an organization that shall rank second to none in the Union, and can but feel that for a want of a proper understanding of the position in which we are placed, or a willful desire on the part of the Executive Committee, that our claims have thus far been utterly ignored. If such be the case, and our claims are not to be considered, we desire to place our funds to the credit of some charitable institution, and solace ourselves with the decision that we are disfranchised Nashvilleans, and out of the Union.

Very respectfully, JAS. W. ROCKWELL, D. D.

Are Telegraph Companies Above Criticism?
TO THE EDITOR OF THE TELEGRAPHER:

THERE appears to exist amidst the telegraphic fraternity a certain class of men whose desire is to exhibit to the public gaze merely the bright side of the administration of telegraph companies, leaving the more corrupt and carefully-concealed operations to repose undisturbed.

It should be a source of gratification to the numerous readers of THE TELEGRAPHER that [that journal has been bold enough to ferret out, and present for our information, many facts which would otherwise have remained unknown excepting to members of the "ring."]

If the managers of telegraph companies are as honest, straightforward, and magnanimous as some persons would lead us to suppose, I can see no reason why they should upbraid THE TELEGRAPHER for chronicling their actions, so long as there is no deviation from the truth. I cannot see where a single seed of dissension has been planted between the operators and their employers. Have we not a moral right to consider Sunday labor an unjust exaction? Are we not justified in lauding that stroke of financial policy which strives to increase dividends by depriving us of the costly luxuries known as soap and towels? I will not enter further into the details, fearing lest I shall bring vengeance upon our heads; but I cannot refrain from expressing the hope, that if operators feel it their duty to oppose the policy of THE TELEGRAPHER, they will at least base their antagonism on some more flagrant wrong than its so-called attacks upon the Western Union Telegraph Company.

BISON.

Buffalo, N. Y., April 9th, 1867.

District Proceedings.

ST. LOUIS DISTRICT.—Regular meeting March 10, 1867, but no quorum present.

It is understood that at the next regular meeting an effort will be made to ascertain whether this District is dead or sleeping; if the former, it is to be hoped that it will receive a decent Christian burial, and if the latter, that some efficient means may be found to rouse it from its lethargy.

The following are the names of the members of this District who were expelled for non-payment of dues at the regular meeting held November 11, and which were not included in the minutes of the meeting as published:

E. Lessell, W. H. Morelock, C. S. Payne, G. W. Cord, R. T. Welliver, H. J. Fische, C. W. Jaques, R. W. Coates, H. P. Hull, R. C. Voelker, and A. H. Seymour.

WASHINGTON DISTRICT.—The thirty-ninth regular meeting was held March 28, 1867. Thirteen members present.

The Treasurer of the District having failed to report as required by the Constitution, after considerable discussion, a committee of two was appointed and instructed to examine the Treasurer's accounts and obtain a settlement immediately.

Director announced the transfer of D. E. Rand to the Boston District, to date from March 1.

Report of Committee on By-Laws taken up, several amendments accepted and again referred to a committee.

Adjourned 10.30 P. M.

DETROIT DISTRICT.—Regular meeting held March 3.

Minutes of preceding meeting read and approved.

District Secretary's report for quarter ending February 28 read and accepted. Also read report showing C. C. Reed nine months, and Ed. Botsford twelve months in arrears.

Vernon Weston and R. W. O'Brien returned certificates and withdrew from membership in the Union.

ST. JOSEPH DISTRICT.—Regular meeting called to order March 3, 1867, at 3 P. M.

Minutes of last meeting read and approved.

District Director informed the meeting he had received a communication from Mr. Trevor, who desired to withdraw from the Union. Also that the remittances from Mr. Salmons had been received, but he had not as yet heard from the President.

The Local Treasurer's report showed the financial account of the District to be in a flourishing condition.

Mr. McDill offered the following, which were unanimously adopted:

"Whereas, Information having been received through the columns of THE TELEGRAPHER, of the intended publication of *The Telegraphic Journal*, as rival to the organ of the National Telegraphic Union,

"Resolved, That in the opinion of the members of this District, efforts for the support of two telegraphic journals would be impracticable and eventually result in the extinction of both."

"Resolved, That in the THE TELEGRAPHER we recognize the organ of the National Telegraphic Union, the first telegraph herald ever published in America."

"Resolved, That to THE TELEGRAPHER much credit is due for the advancement of our cause and the success of its interests, and that, pledged individually to its support as subscribers, we will continue in earnest endeavors to multiply its contributions and enlarge its subscriptions."

The District Secretary read a communication from Mr. Hoaby acknowledging the receipt of a copy of the resolution, passed at the last meeting of this District, which, on motion, was ordered on file.

Adjourned.

TELEGRAPH CONSOLIDATION.—It is a settled fact that the Insulated Telegraph Company's lines are to pass into the hands and management of the Franklin Company. Preliminary steps in that direction have already been taken by asking authority from the Legislature to consummate the act. Neither company petitioned for authority, but the matter was brought about by one of the members introducing a bill on leave, which was subsequently referred to the Committee on Mercantile Affairs, of which Mr. John Botume, Jr., Treasurer of the Insulated Line, is a member. The bill provides that the Franklin Company may purchase and issue stock to pay for the rights and privileges and property of the Insulated Line at such price as the two companies shall, by a vote of their stockholders, agree upon; also that the Franklin Company may increase its capital stock to a sum not exceeding \$1,000,000, and may establish the par value of its stock at \$50 per share.



MONDAY, APRIL 15, 1867.

A Few Words to the Grumblers.

We wish it distinctly understood by our friends that in conducting this paper we have no personal spite or malice to gratify, by criticising the management of the Western Union Telegraph Company. As a corporation simply, we bear it no ill-will. Even as a monopoly concern, controlling nearly all the telegraphic facilities of the country, we should not feel any opposition to it, were it not for the fact that it manifests a very illiberal policy toward those of its employés whose interests it will be our constant aim to represent and maintain.

If from any error of judgment, or inability on our part, we fail to comprehend and correctly represent the wishes of the individual members of our organization, our columns are always open to them, and they can at all times speak for themselves.

It is also our desire to pursue such a course as shall best subserve the interests of all concerned with the telegraph business, whether in or out of the Union, whether operators or clerks.

It would be gratifying to us if every telegrapher in the country would realize the great importance of an organization like ours, and hasten to add the moral weight of their influence to the good work by joining the "Union," and subscribing for its organ.

The "Union" was intended for the general good of all telegraphers, and those who remain outside have no right to grumble and find fault with it because, in their opinion, it has failed to achieve all that was intended or hoped for by its originators. Let these hypercritical grumblers come into the fold and aid us in removing such objectionable features in our organization and its management as they think they may have discovered, or cease snarling at that which they are unwilling to improve. It is easier to destroy than create. But probably these malcontents are of Wilkes Booth's opinion, "The youth who fired the Ephesian dome was greater than he who builded it."

We say the policy of the Western Union Company towards its employés is an illiberal and unjust one. While the salaries of telegraphers as compared with those of other young men in other branches of business may be as remunerative, and even more so than the salaries of the majority, yet we maintain that an operator's duties are so distinctive and peculiar, that there is no other business which has any apparent similarity, and it is therefore manifestly unjust that their pay should be based upon the amounts paid young men generally in other occupations, requiring far less, and guaranteeing a much longer lease of life.

Look at the duties of a first-class operator in any of the larger offices. During business hours he is closely confined to his desk; without a change of position, he is busily engaged in manipulating as rapidly as possible the "key," or translating the "click, click," of the sounder, and writing out, with

a rapidity but little known outside of our business, the intelligence conveyed by these sounds. His senses of hearing, feeling, and seeing are all engaged in the work. Mental and physical endurance are fully tested. The tax on one's powers is constant and severe, and those acquainted with the facts of which we write, never marvel that consumption, with its unrelenting hand, seizes upon so many of the profession, hurrying them to untimely graves. The best skilled are generally the hardest worked; but the duties of all telegraphers are confining, arduous, and exhaustive, and while their employers are reaping large profits they should be well paid.

We are informed by parties who should know, that the Western Union Company, since its consolidation with the United States Company, have decreased their expenditures over one hundred thousand dollars per month, as compared with their expenditures alone previous to that time, while their receipts have shown a monthly increase of nearly double that amount. If this be anywhere near the truth, why should not their employés share in a small degree in the success of those for whom they are required to labor so hard.

The managers of the Western Union Company are many of them thoroughly experienced in the business, and practically acquainted with the duties of an operator, and in their pride of position and power it is not right that they should be unmindful of the legitimate claims for kindly consideration the telegraphers in their employ have upon them. Under as favorable circumstances, it is possible that many operators would own their palatial residences as well as Messrs. Wade and Stager. Being inside the "ring," with the coöperative aid and advice of so shrewd a man as Mr. Sibley, who could not acquire a fortune?

But small salaries are not our only cause of complaint. We earnestly protest against operators being treated like boys. Many of our large offices are like school-rooms, with monitors watching closely for an opportunity to impose a reprimand or a fine upon any luckless individual who, perchance, inadvertently breaks over some one of the many rules or general orders which fall from "Headquarters" as thickly as the leaves in the vale of Vallambrosa.

Fining an operator for a few minutes' tardiness, and posting his name upon a blackboard is very puerile business and is destructive of the self-respect of those who are forced by circumstances to submit to such humiliating treatment.

Rely, Messrs. Managers, a little more upon the pride of character and manliness of your employés—encourage them by a share, over and above their present salaries, no matter how small, in your great profits, and you will speedily find a largely increased amount of interest, energy and application on their part.

At present there is but little encouragement for men of capacity to enter the telegraph business, and but little to keep good men in it. Of those occupying remunerative positions "few die and none resign." Favoritism and relationship, family or military, seems to control all appointments, and we are constrained to believe that to *bona-fide* competition alone can we look for an improved state of affairs.

In France and England operators are poorly paid, but an interest is displayed in their mental improvement which is very commendable. Libraries are provided by the companies, and their employés have always at their command the best works on

magnetism, electricity, metallurgy and subjects pertaining to the science and business of telegraphy.

We think all American telegraph companies would find it for their interest to pursue a like course.

In conclusion, we challenge any one to produce the first particle of evidence to show that THE TELEGRAPHER has ever been conducted in the especial interest of any telegraph company.

We had much rather commend than censure, but in doing either we speak in the interest of employés rather than employers. The companies are fully able to take care of themselves.

We would call the particular attention of our readers, and especially those interested in the construction of new lines of telegraph, to the correspondence which is published on the first page of the present number, which was kindly furnished us by Dr. C. M. Cresson, at our request, for publication. It will be found to contain the results of a series of valuable and carefully-conducted experiments, which completely sustain the views we have frequently expressed in regard to the vitally important subject of telegraphic insulation.

The correctness of Dr. Cresson's conclusions based upon his experiments is fully verified by the practical working of the telegraph lines in this country, and the unanimous testimony of the operators employed upon them; as every variety of insulator described in the report—with one exception—is at the present time in daily use upon different lines in the United States. With these plain undisputed facts before them, it is perfectly incomprehensible to us, why all telegraph companies and constructors, with very few exceptions, should continue to put up lines with the old forms of insulator—many of which are so defective as to be little better than no insulation at all. It cannot be urged that the paraffine insulator has not withstood the test of time. There are lines now working, which have used it for a period of six years, with the most satisfactory results.

There is an old proverb to the effect that "a word to the wise is sufficient," but we fear there is a lack of wisdom somewhere in the management of our telegraph companies, or it would not have become necessary, in view of the facts of the case, for us to recur so frequently to this question of insulation.

Personal.

T. T. CHILDS has been transferred from Dixon, Ill., to Chicago Office (Sj.)

W. S. MELLIN, of Kenosha, Wis., has been appointed station-agent and operator at Racine, Wis. E. G. Johnson has accepted the place vacated by Mellen.

JOHN LENHART, formerly of N. Y., and B. F. Cogger, of Peoria, Ill., have accepted positions in Omaha Office.

D. F. CANFIELD, of (Sj.) Chicago Office, resigned to accept clerkship of steamer Favorite, plying on Lake Superior. A. W. Canfield transferred from Harvard, Ill., to Asst. Superintendent's office, Janesville Division, C. & N. W. R. R., Chicago.

A. C. BARKER, of DeKalb, has been transferred to Harvard. Mr. Herrington, from Ohio, has accepted DeKalb Office.

JOHN DONNELLY, formerly Night Manager of I. & M. Chicago Office, has accepted a position in Fire Alarm Office. John Q. Mason has been appointed Night Manager, vice Donnelly, resigned.

Wm. H. WOOD, formerly of W. U. Chicago Office, has accepted position vacated by Mason. S. C. Mason resigned from I. & M. Chicago Office, to resume his duties as collector of Illinois and Michigan Canal.

MR. DEAN has accepted position in I. & M. Chicago Office.

GEORGE S. GOULDING has been transferred from the Western Union Telegraph Office, Atchison, to the office of same company at Junction City, Kansas.

J. J. FLANAGAN, formerly of Louisville, is now with the Southern Express Company, at Memphis, Tenn.

MR. CHARLES E. PERRY has been appointed Superintendent of the Atlantic and Pacific Telegraph Company's lines between New-York and Chicago. Mr. P. was Superintendent of the United States lines between Albany and Montreal previous to their consolidation with the Western Union.

D. R. DOWNER, of the Western Union Stock Board (Bx.) Office, in this city, has been transferred to the main office, 145 Broadway.

MISS FANNY MANLEY, of Washington, Mass., is to take charge of the Great Barrington (Mass.) Office, vice J. G. Robinson, resigned.

MR. S. L. GIBSON, late clerk in the Superintendent's Office, has been appointed Manager of Pittsburg Office, vice Casselbury, resigned.

PETER V. BENNETT, for several years connected with the telegraph service, at Albany, in the capacity of book-keeper, receiver, etc., has been compelled to resign his position in consequence of continued ill health. He is succeeded by Mr. Lapp, of Buffalo.

MR. WM. C. HAVENS, formerly of Insulated Lines Office in this city, returns to the United States from Port Hood, C. B., about the first of May. George Gallup, also formerly of Insulated Line in this city, succeeds him as Manager of Port Hood (W. U. Telegraph Company) Office on May 1st.

Telegraphic Miscellany.

WANTED—Numbers 2 to 7 inclusive and also No. 16 of Volume I. of THE TELEGRAPHER, for which we will pay any reasonable price.

We have received a neatly printed pamphlet containing the By-Laws of the St. Louis District, N. T. U., for which we are indebted to the District Secretary, Mr. C. E. Dwyer.

We are under obligations to Mr. S. C. Rice for a copy of the manual of the New-York Legislature for 1867.

We are indebted to *The Titusville Herald* for a very handsome complimentary notice of the National Telegraphic Union, and its organ THE TELEGRAPHER, for which we return thanks.

Both branches of the Legislature have passed the bill refunding to the Cornell University the sum of \$25,000, advanced by Ezra Cornell to the Genesee College at Lima. This action is entirely proper, and will give general satisfaction.—*Albany Journal*.

The New-York Herald has a wonderful story about a new ocean telegraph company which has secured the exclusive right to use improved and extra powerful batteries and electro-magnets of recent invention, by which messages can be sent direct between New York and Paris at a most unprecedented rate of speed. Wonder if the editor has been in consultation with S. F. V. C., C. E.?

THE Atlantic and Pacific line is contracted to be completed from New-York to Buffalo by September 1st. *The Albany Evening Journal* says its stockholders are the best business men of the city.

We have received a work entitled, "An Exposition on the Most Improved Telegraph Cable, and the Theories

Connected Therewith," by A. J. DeMorat, and I. Newton Peirce, of Philadelphia. We may, perhaps, notice it at greater length in a future number of our paper.

THE Western Union Company have established a Commercial News Bureau for the distribution among merchants and other subscribers of the commercial news from all parts of the world, which is received at the office of the New-York Associated Press. This department has been placed in charge of General Marshall Lefferts.

THE Western Union Telegraph Company are working a through circuit from New-York to St. Louis. The distance is about eleven hundred miles.

THE Western Union Company are about to construct a line from Virginia City, Montana, to Helena.

THE Western Union Company have discontinued their office at Colchester, Conn.

On the seventh of March a message was sent from New-York to London, and an answer received within four and a half hours.

THE International Company expect to have their line completed to St. John, N. B., by next January.

THE Legislature of Maine has passed a bill providing that when any telegraph company has been authorized to locate a line of telegraph across the lands of any individual or corporation, that damages may be estimated and secured in the same manner as in case of land taken by railroad corporations if the parties fail to agree upon a satisfactory compensation.

The Eufala News and *The Macon Telegraph* have been playing a game of chess by telegraph, resulting in the triumph of the former. The editor expresses his obligations to Mr. J. C. Thomas, of the Eufala office, as well as the operators at Macon and Columbus for facilities afforded them.

The first steamer of the West India Telegraph sailed a few days since for Key West.

THE members of the National Telegraphic Union are under lasting obligations to Geo. M. Taylor, Jr., operator at Annapolis, Md., for his untiring exertions in procuring the passage of the bill incorporating the Union, through the Legislature of Maryland.

THE Directors of the Montreal Telegraphic Company contemplate making a material reduction in their tariffs, to take effect as soon as the lines they have recently acquired can be put into proper working order.

No less than seventy-five different operators have worked in the Buffalo office during the past three years.

The curious fact has been observed by means of the microscope, that perforations made by the electric spark are uniformly pentagonal in form.

PROF. FARADAY states that the chemical action of a grain of water upon four grains of zinc could evolve electricity equal in quantity to that of a powerful thunder-storm.

THE Western Union Company are abandoning many of their old turnpike lines in New-England. The old "House" line from New-Haven to Hartford via Middletown, and the "Bain" line from New-Haven to Providence via Middletown and Norwich, both of which were built in 1849, have recently been taken down as well as the old Morse wire from Meriden to New-London via Colchester.

THE four wires between New-York and Boston formerly belonging to the United States Company will probably be taken down this season, as there are a sufficient number of wires on the railroad lines to accommodate all the business of the company. The lines can therefore be dispensed with, and the expense of maintaining them saved.

THE cable now in process of manufacture for the Florida and Cuba line is one hundred and ten miles in length.

THERE is now on trial, at the chief office of the London District Telegraph Company, in Cannon street, a telegraph

instrument which, in point of detail and result, appears to be the nearest approach to simplicity and perfection hitherto available for public or private use. It is a printing instrument, producing letters printed in ordinary type by means of pressing small keys bearing the respective letters. It is worked by a combination of clockwork and electricity, and has now been in use for some weeks without a single derangement.

A BILL granting to the American Telegraph Company of New-York, the right of way and privilege to lay, land, and operate a submarine telegraph cable on the Atlantic coast of the United States, and establish telegraphic communication between the United States and Europe via the Bermudas and Azores Islands has passed both houses of Congress.

A SUBMARINE cable is to be laid early next summer between Placentia, Newfoundland, and Sydney, N. S.

THE British and Irish Magnetic Telegraph Company have 18,732 miles of wire in operation.

THE Office of the Chicago Fire Alarm Telegraph, of which Mr. E. B. Chandler is Superintendent, has been removed from its late inaccessible position in the cupola of the Court-House, and is now provided with very pleasant and comfortable quarters in another part of the same building. The removal was accomplished without opening a circuit in the old office till the wire and instruments were ready in the new one.

The Chicago Tribune says that the Pacific and Atlantic Company are extending their lines towards Chicago at the rate of six miles per day, and expect to have their lines working from Chicago to New-York by the first of July.

THE Spanish Government has advertised in the London papers for tenders for submarine cables to connect the Islands of Cuba, Porto Rico and Canaries, with Mexico, Panama and the coasts of South America.

THE Western Union Telegraph Company has introduced its wires into the Merchant's Exchange, Georgetown, D. C., by which members can be placed in direct communication with Richmond, New-York, and all intermediate points. The frequent use already made of this accommodation promises to prove quite remunerative to the telegraph company.

A TELEGRAPHIC wire has lately been established between the Corps Legislatif and the Emperor's study in the Tuilleries, by means of which his Majesty receives reports of the debates while they are going on.

AN enterprising citizen of Alfred, Maine, has connected the rest of the world with that place by a line of telegraph built at his private expense, and joining the International line at Biddeford.

IN ASSEMBLY.—*Albany, March 20.*—In pursuance of the ninth joint rule, Mr. Speaker announced the order of business, "third reading of bills."

The bill entitled "An act to incorporate the National Telegraphic Union Association," was read a third time.

Mr. Speaker put the question whether the House would agree to the final passage of said bill, and it was determined in the affirmative, a majority of all the members elected to the Assembly voting in favor thereof. Ayes seventy-two, nays none.

Ordered, that the clerk deliver said bill to the Senate, and request their concurrence therein.

READ the circular of the Bishop Gutta-Percha Company in our advertising columns.

WESTERN UNION stock tumbled from 41½ to 36½ on the 9th instant. Various opinions are rife as to the cause of this sudden decline, the general opinion being that it is for the purpose of allowing the ring to buy in enough of the stock at low prices, to be able to control the July election.

PRICES OF TELEGRAPH STOCKS.—Western Union, 37½; Franklin, 15 a 16; Bankers' and Brokers', 5; Insulated, 2½.

TO CORRESPONDENTS. — Engineer, St. Louis. — The "local circuit" patent was granted to Prof. S. F. B. Morse, April 11, 1846, for fourteen years. It was extended by the Commissioner of Patents for seven years additional, and therefore finally expired April 11, 1867.

Odd Fellow and Rural Joe. — Not quite up to the mark. Try again. Make your articles more brief and pointed.

The Russian-American Telegraph.

ITS ABANDONMENT BY THE WESTERN UNION TELEGRAPH COMPANY—CORRESPONDENCE WITH THE SECRETARY OF STATE.

The following correspondence is made public:

EXECUTIVE OFFICE,
WESTERN UNION TELEGRAPH COMPANY,
NEW-YORK, March 25, 1867.

SIR:—This company having, after a careful examination of all the facts in the case, determined to suspend work on the construction of the Russian-American (Collins' Overland) Telegraph, deem it due, alike to our own honor and to the services you have so generously and intelligently rendered us in this international undertaking, frankly and fully to state the causes which have led us to such a decision.

The lines of this company having been completed to New-Westminster, the capital of British Columbia, that city became the starting-point for the line to Russia. With greater ease than the building of the line from Chicago to San Francisco, 850 miles of line were erected, and the wires connected to the banks of the Simpson River. Beyond it only needed a vigorous and intelligent commissariat to overcome the difficulties of transportation, and push the construction of the line to the Behring Sea and on to the terminal point at the mouth of the Amoor.

Indeed, at every forward step made in this great work difficulties vanished as resolute bands approached them, and were found to be fewer than were at first contemplated. Not only so, but most important information respecting the navigable character of the northern streams have been secured. The Stekine has been found to be navigable for boats of considerable size for 150 miles from its mouth, and that steam-vessels can ascend the Knitchpak and Youkon Rivers for probably 1000 miles from the Pacific—two facts of great importance, and furnishing unexpected aid in the distribution of material.

On the Asiatic side our explorations have also proved that the Anadir River can be navigated at least 250 miles from the sea, and that there is abundance of timber on its upper waters, suitable for our purposes. Everything conspired to render the whole scheme more and more practicable as the labor upon it progressed. No want of capital, no physical difficulty, no doubt of our ability to complete the work contemplated led to our recent determination to suspend operations thereon. The cause of that suspension we now proceed to state.

The successful laying of the Atlantic cable in 1866 developed, in process of time, several important facts, as unexpected to the company who laid it as to us and the public who took interest in such matters.

The ability of a cable of 2000 miles in length, sunk in the ocean, to convey the manipulations of the telegraph successfully and for any length of time through it, was a matter of almost universal doubt. Nothing aided more to strengthen that impression than the record kept by the electricians on board the Government vessels which bore their respective portions of the cable in 1858 from mid-ocean to the shores of the two continents. Weak, variable, uncertain, there seemed no indications of a power to predicate the supply of commercial communication thereon—at least, so far as public knowledge of that interesting voyage was received. And when it reached the shores, and all the world seemed to want to talk through it, it was found that outside of a few feeble utterances, which to this day are erroneously believed by many never

to have been made, that cable was simply a success of engineering skill in stretching a dumb bond between the Old World and the New.

Experiments in Europe with subterranean and extended submarine lines were unsatisfactory and discouraging. They generally revealed such a detention of the electric fluid, such a want of ability to perform prompt and accumulated service, as to discourage their general use. The current over the cable was known to be of such tenacity that the human eye could not catch the motions of the mechanism except by the aid of a strong light applied to the motive part, revealing by radiation on the wall the pulsation which the finger could not feel and the eye could not otherwise detect.

To satisfy European commerce by such means seemed impossible. Even had that cable continued to work, it was reasonable to presume that with so slow a process of transmission there was business enough for the quicker manipulation of a telegraph by land, although it was obliged to shoot its messages over three-fourths of the surface of the globe.

Under such circumstances, what was our duty? Government, for the sake of national pride and governmental uses, might have been justified in pushing the work to completion, even if it should cost a large sum annually to maintain it. Russia must before many years reach New-Archangel, in America, by telegraph, for the simple purposes of her governmental arrangements. But we could not properly employ the capital intrusted to us except under promise of reasonable return from its investment.

The proof that the basis of revenue had been removed was only needed to be complete to make the duty of at once stopping the whole work a stern, peremptory necessity. That proof we have been from month to month receiving. So clear and cumulative has that evidence been that we have been compelled, though with great reluctance, to acknowledge its completeness and power. All doubts concerning the capacity and efficiency of the ocean cables are now dispelled, and the work of construction on the Russian line, after an expenditure of \$3,000,000, has been discontinued.

Could the Government be induced to prosecute the work now interrupted to some available point in her North American possessions, we will extend and maintain our lines thither, and thus all the objects sought by the respective Governments for intercourse would be secured. Time, and the gradual opening up of auxiliary sources of business, might develop a revenue which would compensate for the outlay and delay. Beyond this we are unable to see our ability to go on under the circumstances already narrated.

These matters are commended to your attention. It has occurred to us that you might, through our minister at the Russian court, so represent these circumstances, so unexpected and embarrassing to us, as to preserve us in the esteem and favor of that intelligent Government, and lead to the accomplishment of our mutual designs. We have the honor to be, with high regard, your obedient servants,

The Western Union Telegraph Company,
WILLIAM ORTON, Vice-President.

O. H. PALMER, Secretary.

The Hon. WILLIAM H. SEWARD, Secretary of State, Washington, D. C.

SECRETARY SEWARD'S REPLY.

DEPARTMENT OF STATE,
WASHINGTON, March 28, 1867.

To the Western Union Telegraph Company, New-York:

GENTLEMEN:—I have received your communication of the 25th inst., and have not failed to lay the same at once before the President.

I am not one of those who have been disappointed by the complete and magnificent success of the International Atlantic Telegraph, nor am I one of those who fear that the United States will enjoy less of its wonderful benefits

than any other nation. I regard it as tributary to an expansion of our national commerce, and, ultimately, of our political institutions, both of which I think are important forces in the progress of civilization. I would not have the Atlantic cable become dumb again even if thereby I could immediately secure the success of the Inter-Continental Pacific Telegraph enterprise, which was committed to your hands. Nevertheless, I profess to a profound disappointment in the suspension of the latter enterprise. I admit that the reasons which you have assigned for that suspension seem to be irresistible. It is impossible for private individuals or corporate companies to build telegraphs without capital; and it is equally impossible for individuals or corporations to procure capital for telegraphs that do not promise immediate or at least speedy revenues.

On the other hand, I abate no jot of my former estimates of the importance of the Inter-Continental Pacific Telegraph. I do not believe that the United States and Russia have given their faith to each other and to the world for the prosecution of that great enterprise in vain. The United States Government is enlightened and wise. The Emperor of Russia is liberal as well as sagacious. Prince Gortchacoff is a pleasant as well as a frank correspondent. I will, with pleasure, make your explanations known to him, and, with the President's leave, I will ask a conference upon the question, "What shall be done next?"

Accept my thanks for the frankness and cordiality of your communication. I am, gentlemen, your obedient servant,

WILLIAM H. SEWARD.

Humors of the Telegraph.

SOMEWHERE about the year 1850, near Buffalo, on Lake Erie, the steamer Atlantic, run into by the propeller Ogdensburg, sunk, taking down with her treasure, both of life and property, to a considerable amount. Many efforts were made to raise her and save the property, but all unsuccessful.

The telegraph one day reported over the country that Bishops Boon and Derrick had left New-York that day to make another effort to raise the buried treasure.

Every one was interested to know what new power these bishops had had delegated to them, that would warrant an undertaking of such magnitude.

Speculation was freely indulged in, as to whether they were prelatic bishops of the Romish, English, or Greek Church, claiming to be successors of the Apostles, and hoping for further success upon the strength of that assumption, or simply pastors or presbyters—Presbyterian bishops—or bishops of the Methodist persuasion having some new method of exercising the power given them.

Speculation was suspended, doubts were cleared up, and the vexed question finally settled by the arrival in Buffalo of Mr. Bishop with his boom derrick, which he forthwith rigged upon scows, and proceeded to the scene of the disaster, for the final effort to raise the unfortunate steamer from her watery grave, all unconscious of the worry created in the minds of the dear public by the bull of the telegraph.

A GREEN operator employed some time since at the P. C. & C. R. R. Depot in Pittsburg, got off the following:

"We were sending to him on a wet day, when the wire was working rather hard, when he 'broke,' and said that we would have to 'adjust' very closely or he could not 'get us,' and remarked that he had to adjust very carefully so his writing would reach us."

He considers himself a first-class operator.

MARRIED.

In Richmond, Texas, March 5, 1867, by Rev. Mr. Ridley, at the residence of the bride's father, Mr. B. F. COLLINS to Miss LUCY L. COLLINS.

At Detroit, Mich., March 6th, 1867, Mr. JAMES A. ALLEN, Manager of Montreal Telegraph Company's Detroit Office, to Miss MOLLIE E. SMITH, of Detroit.

National Telegraphic Union.**TREASURER'S REPORT**

For the Quarter ending February 28, 1867.

Receipts.

To U. S. 5-20 and 7-30 Bonds.....	\$1,600 00
" Cash in hand last Report.....	353 24
" Amount received for dues and fees.....	665 70
" Interest received on 7-30 Bonds.....	36 50
" Sale of Supplement.....	59 72

\$2,714 16

Expenditures.

By paid for Sick Relief.....	234 80
" Funeral Expenses.....	177 65
" Printing Convention Proceedings.....	160 16
" Printing and Stationery.....	84 50
" Editor's Salary.....	200 00
" Treasurer's Salary.....	50 00
" Postage and Incidents.....	12 29
By Cash in hand.....	205 26
" U. S. Bonds.....	1,600 00

\$2,714 16

A. L. WHIPPLE, Treasurer.

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THE TELEGRAPHER is published in New-York, on the first and fifteenth of every month, and besides matters of associate interest, is devoted to the interests of telegraphers all over the world, and will contain telegraphic information from all parts of the globe.

It is not confined to any one policy, but will seek to correct abuses, give honor and praise wherever and whenever due, and endeavor to elevate the standard of operators, both morally and scientifically.

It will not support any one person or corporation, but will aim to treat all alike, censuring either or both, when merited, and praising alike when praise is won.

Its columns will not be open to any one for personal abuse, nor for personal profit at the expense of others, nor will it contain anything that the most fastidious would not read.

THE TELEGRAPHER will contain Original Articles upon any and all subjects of interest to the fraternity and profession; Extracts from Works on Telegraphy, Electricity, and Magnetism; Statistics; Improvements in Telegraphy, Telegraph Instruments, and Materials; Correspondence; Poetry upon Telegraphic Subjects; Telegraphic Literature; Incidents and Items of Personal Interest; Promotions; Removals; Resignations; Marriages and Deaths of Telegraphers; Newspapers Extracts of Telegraphic Items from any and every city, town, State, or country.

We invite the co-operation of every one who is directly or remote-ly connected or interested in Telegraphy, in this undertaking to establish and maintain a first-class telegraphic newspaper, and for any items of news or personal telegraphic interest, articles or news paper extracts upon any of the above-mentioned subjects. We will cheerfully pay a reasonable sum for any trouble and expense gone to in behalf of this paper, and for any original articles which we may use.

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Aside from the advantages apparent upon inspection of these magnets, their acknowledged merits consist in the construction of the *helix*, which was patented Aug. 15th, 1865. This being of naked copper wire, so wound that the convolutions are separated from each other by a regular and uniform space of the 1-600th to the 1-800th of an inch, the layers separated by thin paper. In helices of silk insulated wire the space occupied by the silk is the 1-150th to the 1-300th of an inch; therefore a spool made of a given length and size of naked wire will be smaller and will contain many more convolutions around the core than one of silk insulated wire, and will make a proportionately stronger magnet, while the resistance will be the same.

I therefore cordially invite Mr. S. F. Day to produce one of his very best \$30 magnets, and let its resistance be measured by the *anthistometer* and I will pledge myself to make one of same resistance, in rosewood, finely polished, at \$17, which shall work in the same line against resistance and escape when his will not give a dot.

L. BRADLEY

CIRCULAR.

OFFICE OF THE BISHOP GUTTA-PERCHA CO.,
No. 118 LIBERTY ST.,
NEW YORK, APRIL 2D, 1867.

The Bishop Gutta-Percha Company of the City of New-York, having become by purchase in their own right, and as licensees, possessed of the sole and exclusive right of making, constructing, using, and vending to others to be used,

**THE IMPROVED
SUBMARINE TELEGRAPH CABLE,
AND ELECTRIC CONDUCTOR,**

Covered with a braided or plaited coat or covering, after the manner of a whip or curtain cord, as described in the schedule annexed to, and forming a part of the Letters Patent, issued to Francis I. Bridges, of the City of New-York, and dated March 22d, 1859; *Hereby give notice*, that said Company will prosecute all persons, companies, or firms making, using, or vending said Cable, or Conductor, without their permission or license.

N. B.—This Company is prepared to furnish the Braided Electric Conductor, or Cable, of any size or style required, at short notice.

The Bishop Gutta-Percha Company,
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These Machines make the
LOCK-STITCH,
and rank highest on account of the Elasticity, Permanence, Beauty, and general desirableness of the Stitching when done, and the wide range of their application.—*Report of American Institute.*

REVISTA DE TELEGRAFOS, impresso Nacional, Calle de la Reina, Num. 8 duplicado, MADRID, SPAIN.

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THE
I. WASHBURN & MOEN

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FOR ALL PURPOSES.

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W. E. RICE, Secy.



Vol. III.

New-York, Wednesday, May 1, 1867.

No. 51.

The Central Telegraph Station, London.

THE largest and most extensive telegraph station in the world, with the exception of the Western Union Office in New-York City, is that of the Electric and International Telegraph Company of England. It is situated in a dingy, narrow street in London, which has received the name of Telegraph Street. The building was erected by the company in 1859, and is anything but an imposing or creditable specimen of the architecture of the nineteenth century. It appears to have no design or plan in particular, but consists of an irregular conglomeration of dark passages, staircases with sharp angles, ill-shaped and worse proportioned rooms, and doors placed in all sorts of uncomfortable positions, and without the slightest attempt at finish or decoration, and the whole rendered, if possible, more dismal by the faint, sea-sick looking green, with which favorite color passages and rooms have one and all (apparently not very recently) been painted.

The most remarkable features about the establishment are, of course, the operating rooms, which are situated at the top of the building. There are but two rooms, the largest containing about eighty instruments, principally Digney's ink-marking Morse registers, with Siémeu's improvements, together with a few needle instruments. All these instruments are worked by young ladies. They appear not only to be well-fitted for the work, but the employment seems to suit them; for they chat and read and work while waiting at their instruments for a message, and seem, altogether, very merry.

The instruments in this room are entirely devoted to the English circuits. The smaller room, called "the Continental Gallery," is devoted to the Continental and other important submarine lines. Here all the instruments, about twenty in number, are worked by young men. The lines are now worked through direct to the Dutch Government offices in Amsterdam. Direct communication is, however, daily kept up to towns far beyond that point, the lines being switched through at Amsterdam to such towns as may be required, from day to day. Berlin being an important telegraphic point, one wire is kept constantly through to the office there, so that all messages destined for that city, or points beyond, are sent to Berlin direct. Frankfort is nearly always, in a like manner, communicated with direct, the wires being "put through" at Amsterdam as occasion requires. Constantinople and St. Petersburg are also frequently spoken with direct, though not as a general rule.

On the English circuits, Edinburgh is now always worked with direct, and as twenty years ago it was considered afeat to work through fifty miles, some idea may be formed of the improvements that have since been made in the insulation of these wires.

The batteries for all the instruments, both for the main and local circuits, are kept in the cellars underneath the building. The Muirhead battery—a modification of Daniells'—is employed, no less than nine thousand cells being in use in this station. The combined length of wire within the building is over thirty-five miles.

The transmission of messages to and from the central station is not, however, solely performed by the agency of electricity. To telegraph a very short distance takes, practically, the same time as to telegraph five hundred miles. To send messages, therefore, from any of the other city stations to the central office, when electricity is employed, occupies considerable time as compared with that taken in sending the message on through the greater portion of its journey. To remedy this Mr. Latimer Clark introduced the Pneumatic system, by which the message papers are, as it were, sucked through a lead pipe from some of the nearer metropolitan stations to the central station, whence they are telegraphed on in the usual manner. By this process messages could only be sent to the central station, the plungers which contained the messages having to be carried back by messenger. Mr. Varley added the employment of a plenum chamber, and pressure to send messages from the central station.

The apparatus consists of a wrought-iron vacuum-chamber, five feet in diameter, and ten feet high. A twenty-horse engine works an air-pump, which constantly exhausts air from this chamber, and another pump pumps air into the plenum chamber. Lead pipes, 1 5/8 inches in diameter, for the shorter distances, and 2 1/8 for the longer distances, are encased in cast-iron pipes underneath the streets. A small plunger or carrier, consisting of a cylindrical box of gutta-percha, open at one end, and the edges of which just fit the pipe, carries the message papers. When a carrier has to be sent, the station signals by telegraph to the central station, and the pipe is turned in to the vacuum chamber, and the carrier arrives and is taken out through a door in the side of the pipe. In sending carriers from the central station the pipe is turned into the plenum chamber. There are several ingenious details in the arrangement, but a description of them would not be intelligible without drawings.

The time of transit varies according to the number of pipes open at the same time. There are seven of them in all, the largest being nine hundred and eighty yards, or a little over half a mile in length. The time of transit for this distance is from forty-five to sixty seconds.

Mr. R. S. Culley is now engineer of the company, having succeeded Mr. C. F. Varley, who formerly held the position. Mr. Culley is one of the best practical electricians in England, if not in the world, and is the author of a valuable hand-book of practical telegraphy.

Suit for Damages Against a Telegraph Company.

[Superior Court, before JUDGE JONES.]

Moses Struburg vs. The Western Union Telegraph Company.—This was an action for damages claimed to have been incurred by the non-delivery of a telegram. It appeared from the evidence that the plaintiff, on the 17th of March, 1865, sent a telegraphic dispatch to his agent in St. Louis to sell a quantity of silver lepine watches at \$10 each; that the dispatch was not delivered to the agent, and that in consequence plaintiff suffered in the

subsequent depreciation in the price of watches \$1200, the sum now sought to be recovered. The defence was that freshets had prostrated a portion of the line, and therefore the defendants were unable to deliver the message, and that the fault was not theirs. The point was also raised whether plaintiff could sustain an action or a loss resulting from a sudden depreciation in gold. The plaintiff having concluded to rest his case, the attorney for the defendants moved to dismiss the complaint on the ground—1. That the damages claimed as resulting to plaintiff from the failure of defendants to transmit his message to St. Louis, were too remote, depending as they did upon the fluctuation in the gold market. 2. There was nothing in the telegram which indicated to the telegraph company that there was any pecuniary value in the dispatch, or that anybody would sustain a loss from the failure to transmit the same. The court denied the motion, and held that the telegraph company was bound to infer that any dispatch left with them was of importance, and might be of pecuniary value to the persons sending and receiving the same; they were bound as common carriers to exercise due diligence and care in the conduct of their business, without being notified of the specific pecuniary value of every dispatch left with them for transmission. As to the measure of damages, it should be based in this case on the market value of gold—that being at present a merchantable commodity—at the time the dispatch should have been received and subsequently. So far as the delay in the transmission of the message was owing to storms which prevented the working of the wires, the court held that it was a good defence; but it was proved that the message was left at the telegraph office at 10 A. M. of the 16th of March, and communication was kept up with St. Louis until 4 P. M. of the same day. The jury returned a verdict for the plaintiff for \$600.

Converting Electro-Magnetic Engine.

We learn that Mr. Siemens and Professor Wheatstone have simultaneously produced, before the Royal Society, similar machines realizing the conversion of mechanical into electrical force with remarkable perfectness and almost a minimum of loss. Mr. Siemens' converter consists of a bar of soft iron with a very slight initial magnetism, aided by the small mechanical force required to rotate it within an envelope of copper wires laid parallel to its axis. The electricity thus excited by the slight initial magnetism of the iron, excites the magnet in turn, and this reciprocal excitation goes on in unlimited progression. In the miniature experiment shown, the magnetism developed surpassed the strength of two men, and the heat of the electrical current was sufficient to melt iron wire. The power required being so trivial, and the movement so simple and frictionless, it would seem that these striking results might well have approximated closely to an equivalent for all the mechanical power expended. This is a great result in its practical bearings, particularly on the advantageous conversion of mechanical power into light. Our present mode of getting light (to illustrate

grossly) is like keeping up a bonfire or heating a furnace merely to read by. We throw away the most of our light-fuel in the form of heat, which, if converted into steam power and that power passed through electro-converting engines and issued in electric light, might be almost adequate to turn the night into day. It ought not to be long indeed, before night will become merely an optional indulgence.

Another Presentation.

On the tenth ult. the operators of B. and O. R. R., and W. U. (Western Division) Telegraph Companies, through Messrs. J. F. Morrison and H. M. Hoffman, presented Mr. Geo. B. Scott, late Assistant Superintendent, with a very handsome watch and chain as a token of their highest appreciation and esteem for him as a Superintendent, a gentleman, and a friend.

Mr. Scott's acknowledgment was by telegraph as follows:

WINCHESTER, Va., dated April 11, 1867.

TO MY FRIENDS OF THE B. AND O. R. R. AND W. U. TELEGRAPH:—I was most agreeably surprised to-day at receiving your beautiful and acceptable present, and still more delighted than surprised both with the articles themselves and the kindly feelings which prompted their presentation. I cannot express my thanks in words as earnestly as I feel them, but I assure you that I will never forget the warm friendship and hospitality I experienced while laboring with you, and my greatest regret at leaving, is the parting with so many kind and sincere friends. Earnestly wishing you all health, happiness, and prosperity. I am sincerely yours,

GEO. B. SCOTT.

Sunday Labor.

[For THE TELEGRAPHER.]

THE divine command to "remember the Sabbath day to keep it holy," and upon that day to abstain from labor, is founded upon infinite wisdom, and certainly explicit and binding beyond all cavil or doubt. To the laboring man this one day in seven is not only a spiritual but a physiological necessity. Our daily labors are prolonged and exhausting. A majority of our fraternity are young in years, and to no class of laborers is the boon of a Sabbath day's rest more necessary or desirable.

The Sunday receipts of telegraph companies are insignificant, and the "demands of trade and commerce," or individual convenience merit no consideration whatever when so directly opposed to God's command and the welfare of humanity.

No individual nor corporation can be justified in secularizing or abridging in the least this God-given day of rest and repose. Give us every hour of this day for bodily recuperation, for spiritual and moral culture; for social recreation with our wives and children, and on the Monday morning we will bring to our daily work strengthened brains and willing hands.

H.

Telegraphic Assault and Battery.

THAT terrific fire-eater, H. Rives Pollard, of the Richmond *Examiner*, has been again on the war-path, and this time, with Pickwickian ferocity, he has committed a deadly assault upon an innocent and unoffending man, at a range of nearly eighty miles. It required the genius of a member of one of the "first families" to conceive the idea of stalking his adversary across a telegraph wire. But Pollard recognizes no obstacles to his soaring energies, and he attacks Mr. Wynne, the purchaser of the *Examiner*, at ten cents a word, or whatever may be the rate between Gordonsville and Richmond, in the following choice dispatch:

GORDONSVILLE, April 13, 1867.

To Thomas H. Wynne:

You are a damned thief and liar. Pay dishonored

drafts this day, and arrearages of your bond, and cease to retail your cowardly lies and gossip about me, or I will cut your tongue out, and grind you to dust by exposing your thieving and villainous transactions with Yankee companies. *I am on my way to Richmond!*

H. RIVES POLLARD.

Wynne, however, still lives; and Pollard, already bending beneath numerous bonds to keep the peace, has an extra \$1000 imposed as an additional security. No wonder Wynne rushed to the Mayor's office and demanded protection. That final intimation, "*I am on my way to Richmond!*" would have struck terror into braver hearts than Thomas Wynne's. The figure of Pollard, striding along the swaying wires—for he undoubtedly came by telegraph—bristling with bowie-knives and revolvers, redolent with fresh war-paint, and chanting the death-song of his foe in those well-known words,

"Be he live or be he dead,
I'll grind his bones to make my bread."

is a picture calculated to chill one's marrow, even at this distance.—*Phila. Inquirer.*

The Electric Telegraph.

BY REV. J. G. LYONS.

ALONG the smooth and slender wires,
The sleepless heralds run,
Fast as the clear and living rays
Go streaming from the sun.
No peals or flashes, heard or seen,
Their wondrous flight betray;
And yet their words are quickly felt
In cities far away.

Nor summer's heat, nor winter's hail,
Can check their rapid course;
They meet, unmoved, the fierce wind's rage,
The rough waves' sweeping force:
In the long night of rain and wrath,
As in the blaze of day,
They rush with news of weal and woe,
To thousands far away.

But faster still than tidings borne
On that electric cord,
Rise the pure thoughts of him who loves
The Christian's life and Lord;
Of him, who taught in smiles and tears
With fervent lips to pray,
Maintains high converse here on earth
With bright worlds far away.

Ah! though no outward wish is breathed,
Nor outward answer given,
The sighing of that human heart
Is known and felt in heaven.
Those long, frail wires may bend and break,
Those viewless heralds stray;
But Faith's least word shall reach the throne
Of God, though far away.

Sabbath at Home.

Correspondence.

The Defamer of the Telegraphic Union.

NEW-YORK, April 25, 1867.

TO THE EDITOR OF THE TELEGRAPHER:

DURING the war for the Union our brave officers and soldiers were oft-times very much incensed, if not discouraged, by the faultfinding spirit exhibited, and the continual carping of those prudent carpet-knights who, taking all the while precious good care to keep themselves out of harm's way, made it their especial business to criticise the conduct of the war, the energy and capacity of our officers, and sometimes even the bravery of the rank and file. They avowed themselves strongly in favor of a vigorous prosecution of the war, even as Artemus Ward said, "If it took all their wives' relations;" they were, *par excellence*, patriots of the first water, and of course had a perfect right to criticise, no matter how poor and unreliable their sources of information.

This general had some capacity, but he was too cautious, and lacked dash. Another was rash and led his

men to unnecessary slaughter. Now they cried forward; and then, when forced by the pressure of public opinion, which these self-constituted critics had done much to create, our armies advanced to disaster and defeat, they would hasten to declare that it was just what might have been expected.

If one could have judged from the self-sufficient tone of these critics, he might have well believed that if to them had been intrusted the management of the War Department, or the leadership of our armies, the war would have been quickly brought to a successful issue. Such exhibitions of self-conceitedness are by no means singular to the crisis in our political history, of which we speak.

In all ages, the world over, there have always been, and we presume there always will be, thousands who, never ready to lend their own aid to the accomplishment of a good work, unhesitatingly use all the power of which they are possessed to hinder and retard those of greater faith and more positive energy. When they cannot find fault with the end they will surely denounce the means. It is easy for them to decry, malign and misrepresent—they are never known to praise, for their *beau ideal* of capacity, judgment and tact is reflected to them from their mirrors, and only they are fitted to lead.

Yet they prefer to destroy rather than create—their forces are of a negative rather than a positive character. Such men never help the car of progress forward: they are always clogging its wheels.

Malice may not always be the predominant motive, yet are they essentially destructives. We have been led to these reflections by certain evidences which we have recently seen in the columns of *The Telegraphic Journal*, which claims to be "devoted to the interests of the whole telegraphic fraternity," that we have in our possession quite number of these birds of ill-omen, who are evidently very anxious and impatient to attend the obsequies of the National Telegraphic Union.

Prominent among these—at least he occupies the most space—is a correspondent who has the impudence to place under his misstatements, sophistry and nonsense the signature *Justitia*. He starts off with the assertion that the "Union" is practically dead. He misquotes the Preamble to our Constitution, and bases his argument thus: "These being the objects of its (the Union) creation, it follows, if they fail to accomplish all of them, that it is practically dead: If my arm should be palsied, no one would deny that while diseased it was for all practical uses dead;" ergo, "If the designs of the founders of the Union have been thwarted or destroyed, then the 'Union' is dead." Let us look at what he is pleased to call his "syllogism." If his arm be palsied, does it follow that all of his limbs or his whole body has lost its usefulness? Is it even certain that the arm, with proper treatment, may not recover its wonted power?

Now, if up to this hour the Union had failed to accomplish the first iota of the purposes of its organization, as set forth in its preamble, so long as any respectable number of its members adhere to its standard, so long as a corporal's guard can be found to keep the old banner flying, with "mutual protection in adversity, and the advancement of the general interests of the fraternity," inscribed thereon, with their original purposes warm in their hearts, the Union cannot, with justice, be called dead, nor "practically" dead, because, forsooth, it has failed to achieve its objects within a limited time. We must defer it to another time, but we can show that the Union, while it may not have achieved all that its well-wishers could desire, yet that much, very much, has been done in the right direction—that it has proved a protection to many in adversity, has cared for its sick and buried its dead, and has exercised a powerful influence for the upholding and elevating the character and standing of the profession.

That the Union does not to-day control the entire telegraphic interests of the country, that it has not bought or crushed out the Western Union with its \$45,000,000 of capital, consolidated all the smaller fry, completed the

Russian extension, and relieved Mr. Field of the management of the Atlantic cable, can only be attributed to the lamentable ignorance, on the part of its founders, that in the wooden-nutmeg State, in the city of New-Haven, "wasting his fragrance on the desert air," there lived a youth, possessed of that rare combination of genius and business capacity, which, could his weighty co-operation have been secured, would at the very start have organized and compelled success.

Listen to his plan, and "ye that have tears to shed, prepare to shed them now." He says, "Had they (the delegates to the first convention) established a bank of deposit in some central city—of the thousand members, they could have averaged a deposit of twenty-five dollars each per month, which would equal \$25,000 per month, or \$300,000 per year—by this time the Union might have over a million ready funds," and eventually controlled all the telegraphs in the country.

"Of all sad words of tongue or pen,
The saddest are these: 'It might have been.'"

Woe to us that *Justitia* was not selected as our first president. O unfortunate Union! O unhappy telegraphers! What have we not lost? We have his plan, indeed, but we fear the flood-tide which would have borne us on to fortune has passed—gone forever.

But seriously, how many telegraphers are there who can or do save twenty-five dollars per month, and how many are there who, after practicing the self-denial necessary to enable them to save from their small earnings twenty-five dollars per month, would be willing to invest it all in any association whose success was not fully assured? The truth is, that it is unreasonable to expect that practical telegraphers will ever see the day when from their own savings they can furnish the capital necessary for the establishment and maintenance of lines of telegraph, covering a country so broad as ours, and it is nonsense to talk about it.

We think *Justitia* and others outside of the Union could be credited with a far greater degree of real interest in the welfare of their fellows, if instead of deriding the efforts of others, and croaking about "what might have been," they should lend a helping hand to guide our ship—which they would have us think is drifting towards the breakers—to a desirable haven.

But we pass on. *Justitia* thinks it "ominous" that the editor of THE TELEGRAPHER, although elected by the Convention of the Union, is not considered as one of its executive officers. Ominous, indeed! Ominous of what? Did *Justitia* never hear of elective officers in an association who were not members of the executive board? Ha says there were many who were members that have been expelled for the non-payment of dues. So much the worse for the delinquents; it argues nothing against the organization itself.

In his second letter *Justitia*, clinging to his idea of the Union controlling telegraph interests, declares that "the representatives of the Union, in its inception, believed that shortly, through it, they would control all the telegraphic interests in the United States, the military not excepted," and he pretends to quote the following words as among the inducements offered to increase our numbers, "that we will compel companies to raise our salaries." We would like to know where he found those words, and his authority for using them as expressive of one of the primary objects of the association.

That many of our members entertained the hope that the time might come when the Union would be strong enough, in case of necessity, to demand a fair price for services rendered, and enforce their demand, we do not deny. But the very first Convention that ever assembled discussed the "strike" question, and decided that the regulation of operators' salaries should not be attempted. The prominent members of the Union, and those who have represented it in conventions, although not gifted, perhaps, with the same degree of mental caliber as *Justitia*, were prudent enough not to undertake that which

there could be any doubt of our ability to carry out. *Festina lente* is a good motto, and the fixing of salaries wisely remains a question for future consideration.

We are only speaking of the Union in the past. Everything considered, we believe it has accomplished all that could have reasonably been expected. What its future may be, if the telegraphers in the country will generally unite under its banner, is a question we leave for discussion hereafter, asserting, however, that we neither indulge in utopian dreams, nor think of achieving impossibilities.

Justitia declares that some of the most immoral operators he ever knew are prominent members of the Union, but he adds, in the same breath, that they may be called "decayed pillars," so we don't think their prominence will hurt us much.

The honorary membership clause in our Constitution he evidently does not understand, and we pass it by with the remark that it was only intended to afford those who might feel disposed to aid the Union *en amore*, without looking for anything in return, a way of doing so.

He utterly misrepresents the article in reference to aiding the sick. It is not necessary for a sick member to ask for aid. It is the duty of the District officers to see that it is afforded him, not as a charity, but as rightly belonging to him. But we come next to *Justitia's* summing-up. He asks: "Where has the Union succeeded?... They have sought to control companies, to dictate to capital." This is an exhibition of mendacity which any one at all jealous of his reputation would have hesitated long before making. But from bad to worse is an easy step, and the statement that follows is so mean and contemptible, that a well-told lie is honorable in comparison. He says: "It is even said that some members of the last Convention sent their liquor bills to the Treasurer for payment." Now the writer of this was honored with a seat in the last Convention, and he can bear witness to the zeal and earnestness with which every delegate gave his entire time and attention, day and evening, to the work in hand. A more sober and gentlemanly body of young men never assembled together, and the utmost efforts were made to lessen the expenditures for that occasion, and for all future conventions. But we think enough has been said to show the absurdity of *Justitia's* views as to what "might have been," and the malignant character of his misrepresentations. What reward does he expect? Probably a few more crumbs from his employer's table. But it is seldom that men who malign and traduce their fellows are gainers thereby. Dirt-eaters and lick-spittles are usually kicked at last by those upon whom their fawning attentions are bestowed, and from whom they are foolish enough to expect favors. S.

WANATAH, Ind., April 19, 1867.

TO THE EDITOR OF THE TELEGRAPHER:

PLEASE allow me to ask the fraternity through your columns for information of the whereabouts of one George Goodwin, a first-class operator of ten or twelve years' experience. He represented himself as having worked in the W. U. Company's offices at Chicago, Ill., and Toledo, Ohio, and recently in Mobile, Ala. Any one giving me information by letter, I will recompense liberally. Information through THE TELEGRAPHER will also be thankfully received. OPERATOR.

Telegraphic Legislation.

COMMONWEALTH OF MASSACHUSETTS.

An Act in addition to an Act to incorporate the Franklin Telegraph Company.

Be it enacted by the Senate and House of Representatives in general court assembled, and by the authority of the same, as follows:

Sec. 1. The Franklin Telegraph Company may purchase the rights, property, privileges, and franchises of the Insulated Lines Telegraph Company at such price as the

two companies may agree upon by a vote of their stockholders at meetings duly called and notified for that purpose.

Sec. 2. Said Franklin Telegraph Company may increase its capital stock to a sum not exceeding one million dollars, and the par value thereof shall be fixed at one hundred dollars per share.

Sec. 3. This act shall take effect upon his passage.

Atlantic and Pacific Telegraph Company.

This company have completed their organization with the following list of officers:

ATLANTIC AND PACIFIC TELEGRAPH COMPANY—CAPITAL \$5,000,000.

President—Arthur F. Willmarth.

Vice President—William H. Guion.

Treasurer—Richard J. Thorne.

Secretary—Colonel Harper.

Counsel—Vose & McDaniel.

TRUSTEES.

Arthur F. Willmarth, Vice President Home Insurance Company, New-York.

Richard J. Thorne, President Equitable Insurance Company, New-York.

Hon. Henry Hogeboom, New-York Supreme Court, Hudson, New-York.

Hon. William D. Snow, Senator elect from Arkansas.

Samuel Odell, of Barclay & Livingston, New-York.

Hon. Henry A. Smythe, Collector of Customs of the Port of New-York.

H. F. Spaulding, Spaulding, Hunt & Co., New-York.

Charles M. Connolly, of Charles M. Connolly & Co., New-York.

H. H. Mortimer, of Mortimer & Debost, New-York. William H. Gunion, of Williams & Gunion, New-York. Rufus R. Graves & Co., of R. R. Graves & Co., New-York.

Elisha Brooks, of Brooks Brothers, New-York.

John W. Masury, of Masury & Whiton, New-York.

Henry M. Taber, of C. C. & H. M. Taber, New-York.

Norman S. Bentley, of Bently & Burton, New-York.

John Armstrong, of M. Armstrong & Sons, New-York.

Louis Jay, of Christ, Jay & Co., New-York.

Abijah Chapin, Springfield, Mass.

Charles Townsend Shepard, of A. A. Shepard & Co., late President Board of Trade, Albany, N. Y.

Allen Munroe, President Second National Bank, Syracuse, N. Y.

George W. Cuyler, President National Bank, Palmyra, Mo.

James A. Matthews, editor *Commercial Advertiser*, Buffalo, N. Y.

N. C. Simons, Simons & Crissay, Buffalo, N. Y.

Horace S. Walbridge, President Board of Trade, Toledo, Ohio.

T. J. S. Flint, Chicago, Ill.

ROBERT STEPHENSON was very fond of reducing his scientific reading to practice; and after studying Franklin's description of the lightning experiment, he proceeded to expend his store of Saturday pennies in purchasing about half a mile of copper wire. Having prepared his kite, he sent it up in the field opposite his father's door, and bringing the wire, insulated by means of a few feet of silk cord, over the backs of some of Farmer Wigham's cows, he soon had them skipping about the field in all directions, with their tails up. One day he had his kite flying at the cottage door as his father's galloway was hanging by the bridle to the paling, waiting for the master to mount. Bringing the end of the wire just over the pony's crupper, so smart an electric shock was given it that the brute was almost knocked down. At this juncture the father issued from the door, riding-whip in hand, and was witness to the scientific trick just played off upon his galloway.

"Ah! you mischievous scoundrel!" cried he to the boy, who ran off.

He inwardly chuckled with pride, nevertheless, at Robert's successful experiment.

THE ELECTRIC MEDAL.—The American Parliament has passed a resolution of thanks to Mr. Cyrus W. Field, for having made the electric telegraph between England and the States, and has ordered a gold medal to be struck in honor of Mr. Field's single-handed feat. This is quite right. *Punch* would be the last man to deny that "alone Field did it." We are not quite sure whether he let the water into the space called the Atlantic Ocean, but we know he invented electricity and telegraphy, and after years of solitary experiments, perfected the cable which is now laid. He carried it in his one-horse gig from Greenwich to Ireland, and having previously constructed the machinery for paying it out, launched the Great Eastern by his unaided efforts, lifted the rope on board, and consigned it to the deep with his own hands. Mr. Field tied on the Newfoundland end with great neatness, and then ran on with the continuation, and never sat down, or even blew his nose, until he had dispatched the first message. Therefore, the medal is his, and the reverse also. But in concession to the ignorant prejudices of the world, might not just the most modest space, say the rim, bear in faint letters the names of Gibson, Glass, Elliott, Anderson, Canning, and one or two more, who stood by, with their hands in their pockets, and saw the smart Cyrus perform the Herculean task. Anyhow we do give the ground on which this end of the cable rests. But we would not press the request, if it would hurt American feelings.—*London Punch.*

THE NEW SUB-ATLANTIC CABLE.—Specimens of cable manufactured on the process adopted by the British and American Telegraph Company have, according to a report just forwarded to their office by the electrician to the Telegraph Committee of the Board of Trade, been under Government test for some years past. The report is highly favorable as to the tensile power of this form of cable and to the increasing perfection of its insulation, according to the number of years in which it has been immersed. Its superiority in lightness of weight and in diminished bulk will render the task of submersion infinitely less costly and hazardous than in the case of the two cables already linking the two hemispheres. But in addition it possesses a qualification which surprised the Government electrician, who says he could not kink it, though he tried by every means which suggested itself to men of experience, acquainted with submarine telegraphy, who assisted him in coiling it more or less rapidly. Now this fortunate freedom from a contingency which involves a terrible chance of fracture during the process of laying out the cable is another and wonderful guarantee for the success of the operation, in addition to those already made public in the company's prospectus. With the benefit of the experience of past efforts in submerging Atlantic cables, and with improvements in construction and facility of handling, there seems to be a certainty that the first effort of laying down the new cable will be a complete success.—*Mechanics' Mag.*

THE INTERNATIONAL OCEAN TELEGRAPH COMPANY sent out to Florida, via Savannah, on the 6th of April, another and the last installment of material for the construction of the land lines through Florida, consisting of several hundred miles of wire, battery stock, instruments, etc. All is under charge of Major W. H. Heiss, superintendent, who will immediately proceed with a competent force of builders, to construct the line over the route, which he has surveyed during the past winter. It is confidently expected that this line will be built, the cable to Cuba laid, and messages from Havana to New-York be transmitted on or before the 1st of June. The contract for completing the Florida connections has been taken by Mr. John W. Lane, of this city, well-known as the constructor of the Independent and Franklin Lines of telegraph in the New-England States.

A BILL has been introduced into the New-York Assembly, by Hon. Ezra Cornell, providing that any person connected with any telegraph company, who shall will-

fully divulge the contents of any private communication intrusted to him for transmission, or shall neglect or willfully refuse to transmit the same, may, on conviction, be imprisoned in the county jail for a term of not more than three months, or pay a fine of \$500. Any person conning with an operator to obtain knowledge of the contents of any dispatch may be punished by a fine of \$1000, or imprisonment for three months.

UTILIZING ELECTRICITY—NOVEL APPARATUS.—There are now on exhibition at No. 2. Reade street, near Centre, magnetic and electrical apparatus of novel construction and application, well deserving the attention of the curious in science and of all in any way interested in the utilizing of the mysterious agent, electricity. Messrs. Sidell & Fargis, the exhibitors and manufacturers of electric machinery, call attention to their dial telegraph as not the least interesting feature of their exhibition. By this apparatus a child who knows how to read can, with an hour's practice, communicate to a correspondent at the opposite end of the line. We have not space for a detailed description; but the statement of this result is sufficient to show the important improvement thus secured; in the ease by which what was heretofore considered a somewhat difficult and complex operation can now be performed. An application of electricity to the detection of attempts at burglary is also shown. This is adaptable to warehouses, residences, and so forth, the alarm being given by the ringing of a bell on the opening of a door or window in any part of the building after the connections have been made. Other contrivances for conveying messages by signal from offices to factories, from dwellings to stables and outhouses, from anywhere, indeed, to anywhere else, making an ubiquitous servant of the mysterious fluid in all sorts of fashions. These and many other like novelties, important aids to progress in this utilitarian age, will repay a visit to the office of Messrs. Sidell & Fargis.—*N. Y. Times.*

EXTRAORDINARY HOAX.—A correspondence between the Vicar of Newport, Isle of Wight, and the Electric Telegraph Company's engineer at Southampton, divulges an extraordinary hoax. On St. Patrick's day the vicar received a dispatch, marked "private," which stated that the fortifications of Dublin had been attacked, that two thousand Fenians had been killed and wounded, that the telegraph office had been burned down, and that a Fenian fleet was expected to attack the port of Dublin. Upon receiving this dispatch the vicar read it to his congregation, and requested their prayers for those who were supposed to be in peril. When the reverend gentleman discovered that the message was a gross fabrication, inquiries were instituted, and it is now stated that a boy in the telegraph office at Southampton had been playing what the telegraph company's engineer calls "a practical joke" with a juvenile friend at Newport. The two "jokers" have been suspended.

BANKERS' AND BROKERS' TELEGRAPH.—Our brief and pleasant business experience with this company induces us to call the attention of the business public generally to what we conceive to be of vital interest to them—the duty of sustaining by their patronage its praiseworthy efforts to sustain a healthy competition in what is fast getting to be a giant and oppressive monopoly. If one huge company is to be allowed to break down all competition, by fair or foul means, through the criminal negligence of the business public, that public has no right to complain if, in the end, the exactions made upon them by the successful monopoly shall become almost unbearable. For this reason, therefore, we trust our business men will extend a liberal patronage to the Bankers' and Brokers' line, to the immediate as well as remote benefit of their pockets. We know their charges to be very moderate, and cheerfully vouch for the obligingness and courtesy of the employés connected with the office.—*Balt. Chrono.*

ELECTRICITY AS A MOTIVE-POWER.—James G. Duncan, of Placer County in this State, says the *Alpine Miner*,

claims to have invented an electric engine which works admirably, running fast or slow, backward or forward, with great or limited power, at will, and under perfect control. Estimating from the model now working, he says he can make a fifty-horse power machine which would occupy no more than six by eight feet floor surface, and the cost of running it would not exceed twenty-five cents per day for acids to supply the battery. He thinks, and truly, if all he claims is true, that his invention would save some of our great mining companies a hundred thousand dollars a year in fuel. That electricity will be put to use as a motive-power we have no doubt; it is one of the items in the inevitable progress of discovery. If Mr. Duncan has succeeded in taming the steed which Franklin caught and Morse bridled for service as a news-carrier so far as to get him in the traces and make him come down to his regular work all right, we would much rather a Californian should reap the honor and reward than any other man.—*San Francisco Times.*

The large bell of Faneuil Hall, Boston, has been placed in connection with the fire alarm telegraph. The striking apparatus is of the largest class, and yields a hammer weighing one hundred and ten pounds, with a stroke of twenty-seven inches. The weights used to run the machine weigh seventeen hundred pounds. When the improvements on Fort Hill, now being made, are completed another large bell will be placed in a good position in that section of the city.

Patent Claims.

(Recently issued from the U. S. Patent Office.)

62,352.—**CUT-OFF OF ELECTRO-MAGNETIC ENGINES.**—L. H. McCullough, Richmond, Ind., Feb. 26:

I claim the compound rode, T, T, cross-head, R, and posts, 1, 2, 3, 4, constructed and operated substantially as herein set forth and described.

62,414.—**RAILROAD SWITCH ALARM.**—Thomas S. Hall, Stamford, Conn., Feb. 26 1867:

I claim, 1st, The combination of a railroad switch with an electric signal or alarm apparatus, substantially as described, so that the switch in its movement to either side of the "line rail," shall close the electric circuit and sound the alarm, and when in its proper line shall break and leave the circuit broken, using therefor the mechanical devices set forth, or any suitable mechanical equivalent.

2d, In combination with the switch, I claim the slotted lever F, the swivel-head C, the plate g, and the metallic connections, h, h' for operating an electric signal apparatus.

2502.—**GALVANIC BATTERY.**—Edward A. Hill, Chicago, Ill. Assigned April 9, 1862. Patented Aug. 18, 1860. Reissued March 12. 1-67:

I claim the combination and arrangement of the battery-cap and the positive and negative electrode, as and for the purposes specified.

63,158.—**ELECTRIC CIRCUIT-BREAKING CLOCK.**—Edwin Holmes, New-York, N. Y., March 26, 1867:

I claim the combination as well as the arrangement of the circuit-breaker B, its adjuster C, and the spring D, with a clock or time piece A, and an electric or electro-magnetic circuit, the whole being substantially as and for the purpose hereinbefore specified.

63,201.—**ELECTRO-MAGNETIC APPARATUS FOR REGISTERING VOTES.**—John Blackie, New-York City, March 26, 1867:

I claim, First, the combination of a series of hollow magnets for ejecting the balls as described, with the receiving troughs, c, and tubes B, arranged to operate substantially as shown and described.

Second, in combination with the tubes B, open at their lower ends, I claim the drawer D, provided with the stop n, when arranged to operate as herein described.

Humors of the Telegraph.

A CORRESPONDENT hailing from Milton Junction, Wis., gets off the following:

"An old gentleman, who came into town to-day to see the sights, stepped up to my window, and propounded the following puzzler: 'I say, where is the biler?' I modestly asked, 'What biler?' 'The biler that gets up steam for that darned telegraph.' At that moment I answered a call, and received a message, when he wanted to know if 'that was the marks the telegraph made?' I have not

yet made up my mind whether the last remark may be considered a compliment, or the reverse."

"P. S.—We haven't seen the 'bilic' yet."

WHEN the telegraph was first put in operation between Portland and Boston, a countryman drove a flock of turkeys to the former place for a market; but not finding so good a sale as he anticipated, he inquired of some bystanders their price in Boston. Some wag of a fellow advised him to step into the telegraph office. Jonathan entered and put the all-important question to the operator, who immediately telegraphed to Boston, and in a few minutes received an answer to his inquiry, and informed his customer. Jonathan looked at the operator with a sly wink and exclaimed:

"You can't gum it over me."

He was about leaving the office when the operator told him that there were nine shillings to pay. Jonathan bristled up and burst forth in a rage:

"You can't gum it over me. That darned old tick-box of yours hasn't been out of this room since I've been here."

The operator, finding that he had caught a greenhorn, let him off on the easiest possible terms.

THE husband of Harriet Prescott Spofford was in Boston when he learned that he had become a father by this dispatch, dated Newburyport:

"Dear father, I came to town this morning at eleven o'clock, and when you are disengaged I shall be very happy to be introduced to you.

"Truly your affectionate son,

"Richard Spofford."

LOOKING over a package of old papers the other day, we came across the following poetical effusion, which—as a reminiscence of the "Old State Line"—is quite too good to be lost. It will bring up memories of the "early days" very vividly to the minds of many of our readers. It was evidently not intended for publication, but we publish it just as we found it. To touch it would be to spoil it:

A DAY in the Buffalo room of the Printing Telegraph Building, 21 Wall Street, New-York. [Composed expressly for the benefit of his "brothers," by "JACK."]

Buzz goes the old House Telegraph,
Humming, purring, night and day,
Operators cursing, swearing,
Line in all shapes but O. K.

"Turn up, Tim, here's some one calling,
Faster, d—n you: That'll do."
"Reg," fifteen or twenty minutes,
Crossed again with No. two.

"Raise Po'keepsie! Try to Hudson,"
No response from him of course,
Rush of business up the dummy,
D—d old line works worse and worse.

"Where's that cursed little Tommy?"
"On the stair case raising h—ll."
"Some one see what's in the dummy,"
Now there comes a fearful yell

From the boys' room. "What's the matter?"
"Nothing! but a little knock down."

All about who has the best route,
To the region known as "up town."
Big boy gets it; always ends so,
Mizzles down stairs on a run,

"Boston boys" rush down a swearing
Just too late to see the fun.

People howling for their answers,
Horner in a dreadful sweat,
Inquiring every fifteen minutes,
"Jack or Hurn, who do you get?"
Pleasantly informs the public,
"Line is working through O. K."

Knows d—d well that not a message
Goes by telegraph to-day.

Little that indulgent public,
Knows how they are skinned alive,
We know better how it's managed,
"Package by express at five."

The suffering of us operators,
Can't be told by mortal pen,
Hurry, Lord, Consolidation,
When we all can say G. N.

District Proceedings.

CALIFORNIA DISTRICT.—March 11. Meeting called to order at 9 P. M. Eighteen present.

Minutes of previous meeting omitted on motion.

Treasurer's report read and approved.

Mr. Hodge, of Executive Committee, reported favorably on qualification of E. B. Pixley and N. J. Saviers.

Election held resulted in admission of Mr. Pixley. Mr. Saviers, not receiving two third vote, was not admitted. The Secretary read the resignation of A. H. Post, of San Jose, and T. Bell, of Strawberry, both of which were accepted.

A communication was also read from T. J. O'Keefe asking if his accepting a position as teacher in a telegraphic institute established here would be sufficient to cause his expulsion. The matter was postponed till next meeting.

Mr. Mann then introduced a matter of local interest, action upon which was left to operators.

Adjourned.

MEADVILLE DISTRICT.—Regular meeting, April 1. Meeting called to order 9 P. M.

District Director in the chair. Seventeen members present.

Minutes of last meeting read and adopted.

A few more brief remarks were made by the District Director as to the welfare of the Union, and more especially this District, and urged upon each the necessity of working for the Union, and thereby protecting its interests, and he desired that the Meadville District should be a model District.

The District Treasurer's report was read and approved, which shows the District in a fine condition.

James Pitton and J. C. McCutcheon were suspended for non-payment of dues.

On motion, the meeting adjourned.

BALTIMORE DISTRICT.—Regular meeting, April 6th. Called to order 8:30.

Mr. W. H. Bauer in the chair.

After the reading of minutes of last meeting, Mr. W. H. Stewart, rising to a point of order, suggested that as several members present at last meeting were in arrears for dues, the action changing the number constituting a quorum—from 9 to 7—was unconstitutional, and therefore moved a reconsideration of the vote. After the matter was fully discussed, the chair decided that as Art. 2, Sec. 8 referred only to the basis of representation, and until the penalties provided for in Art. 7, Sec. 1, had been enforced, the member could not be deprived of a voice in matters purely of local interest. Under this ruling it was suggested the vote was a legal one, and the question thus disposed of.

Mr. F. J. Connor, of Parkersburg, was duly elected.

The following were expelled for non-payment of dues: Graham, Brenaman, Laurence, Furr, C. J. Thomas, Etter, M. R. Wolff, G. L. Shiver, Applebaugh, S. W. Bowersock, T. M. Quinn, A. Bowersock, C. C. Wolff, Clinton, Baldwin, J. S. Williams, Smith.

On motion, it was ordered that any of the above be reinstated upon payment of all claims against them.

Means of promoting greater interest in affairs of organization was taken up, and, on account of lateness of hour, laid over and made special order next regular meeting.

Attention was called to the duties of Treasurer and Secretary as prescribed in Constitution.

Adjourned.

CHICAGO DISTRICT.—Regular meeting, April 3d. District Director in the chair. Minutes of last meeting read and approved.

Treasurer's report shows \$20.86 in treasury.

The action taken on Mr. Maynard's resignation, received at former meeting, was reconsidered.

He was then granted a withdrawal from the Union.

Messrs. G. H. Thayer, O. B. Wood, and O. D. Sloat were also granted a withdrawal from the Union by a unanimous vote.

E. Hawley, Fred. B. Goodrich, E. F. Smith, O. W. Hurlbut, and C. E. Turner were elected members of the Union.

It was moved and carried that the time of holding regular meetings be changed from the first to the second Wednesday of each month.

Mr. York proposed that at each meeting we resolve ourselves into a debating club, for the purpose of discussing such questions as are of interest to the Union, which may arise from time to time. His proposition was

favorably received, and the question suggested for argument at the next regular meeting is as follows:

"Resolved, That the telegraph companies have a legal and moral right to require Sunday work of their employees." Adjourned.

PEORIA DISTRICT.—Regular District meeting, held April 6th, 1867.

Meeting called to order at 7:40 P. M. Eight members present.

Mr. Cogger having emigrated to Omaha, Mr. Smith was appointed Secretary, *pro tem.*

Reploy, of Wapella, granted withdrawal card, he having quit the business. Cadwallader, of Chenon, having removed to Jerseyville, Ill., also granted card of transfer.

Mr. Sill, of Pekin, suspended for non-payment of dues, he being over nine months in arrears.

Thos. S. Hine and F. C. Belden, of Peoria, elected as members of this District.

The following resolutions were offered and unanimously adopted. Offered by Mr. Cord, to wit:

"Whereas, A newspaper has been started, and is intended to be published in the City of New-York, styling itself *The Telegraphic Journal*, professing to be devoted to the interest of telegraphers, etc.

"Resolved, That this District disown the support of said paper by the members of the Union, and all friends of the same, as we believe said paper to have been gotten up by a few sore heads and disappointed office-seekers for the sole purpose of striking a death-blow to THE TELEGRAPHER (the only organ of the National Telegraphic Union) and bring about the downfall of the National Telegraphic Union. Therefore, we warn all members and friends of the National Telegraphic Union to treat and look upon *The Telegraphic Journal* as an enemy in the disguise of a friend, seeking the utter destruction of that noble institution for which we have labored so long and hard to rear and looked forward to its bright future with so much pride and hope. Therefore we pledge ourselves to the continuance of our undivided support to THE TELEGRAPHER, the old, tried, and true friend of our cause, and wish it a long and victorious life over all its opponents and enemies."

Time being up, and nothing of importance to do, meeting adjourned, to meet on the first Saturday in May.

NEW YORK DISTRICT.—Monthly meeting called to order, April 2, at 8:30 P. M., by the Secretary.

The District Director being absent, W. H. H. Clark was elected chairman, *pro tem.*

Roll called, eleven members present; after that three more came in. Minutes read, corrected, and approved.

A communication from M. B. Lillis then read. In it he tendered his resignation as District Director, stating as his reason that the lack of time prevented his giving to the affairs of the District the attention required from him as its head.

The Treasurer's report read and accepted.

H. S. Upson and S. R. Fox entered on roll of this District, transferred from Albany.

The resignation of M. B. Lillis as District Director was, upon motion, read, and W. H. H. Clark was elected his successor.

The Treasurer reported seven delinquents whose term of notification had expired. They were immediately acted upon, and were expelled from the Union for non-payment of dues.

The Committee on Resolutions reported a preamble and resolution in the case of W. Steinhoff, which was adopted and ordered to be sent to the President for approval before further action.

The Committee on Room, and also the Committee on Third Annual Ball, reported progress.

No other business of importance was transacted during the evening. At 10:30 P. M. a motion to adjourn was carried.

MEMPHIS DISTRICT.—Regular monthly meeting, called to order, March 20th, 1867, at 8:30 P. M.

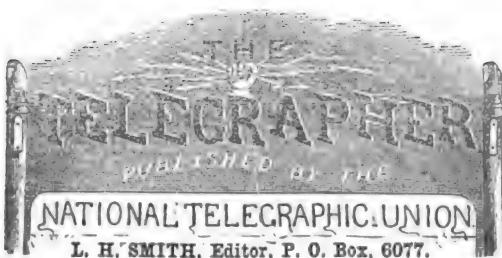
The post of Director, made vacant by the resignation of Mr. Pepper, not having been filled, on motion of the Secretary, Mr. Spinner was called to the chair.

On motion, the regular order of business was suspended, that the Committee on Election might make their report. The chairman, Mr. Dyer, reported the withdrawal of Mr. Spinner's name and the substitution of Mr. Murray's. After counting the votes, it was ascertained Mr. Murray had received a majority and was elected Director for the balance of the term.

Mr. Murray presented his resignation as District Secretary, which was accepted.

Mr. Dyer was chosen Secretary, *pro tem.* On motion, Mr. Spinner was nominated as Secretary, and Mr. Sears appointed a committee to procure the votes of members.

No further business coming up, the meeting adjourned.



WEDNESDAY, MAY 1, 1867.

A Review of the Situation.

WITH the opening of spring the various telegraphic schemes which have been projected and organized within the past year, are being put into practical shape, so that it is possible to judge, with some degree of certainty, what will probably be accomplished during the season in the way of telegraphic extensions, and the increase of present telegraphic facilities.

Of the three principal organizations which have been projected, with a view of covering the principal business points in the United States—which are known respectively as the National, the Globe, and the Atlantic and Pacific Companies—the latter is at the present time showing by far the greatest amount of energy and vitality. As will be seen in another column, they have now fully completed their organization, with a very strong list of officers and trustees, among which are a number of the most influential business-men of the country. They are already building a first-class line from this city to Chicago, and the enterprise at present bears a very promising aspect.

The two other companies above mentioned seem to be making little progress of late. We cannot learn that either of them are taking any steps towards the immediate construction of their lines.

The Pacific and Atlantic company have a line now in operation from Baltimore to Pittsburg and Wheeling, and are building towards Cincinnati and Chicago. Although similar in name, this company is totally distinct from the Atlantic and Pacific Company before referred to. The lines now building by this company are of rather inferior construction, and will hardly be able to compete with the Western Union lines with any degree of success. It is useless to attempt a successful opposition to that company between the seaboard and the Western States, or indeed in any part of the country except by building better, or at least equally as good lines as those now in use.

In the Eastern States the International line is pushing forward quite rapidly from Boston towards St. John and Halifax, and is securing a fair share of the business which will be increased as the larger places, such as Augusta and Bangor, are brought into communication.

The rumored consolidation between the Franklin and Insulated companies still hangs fire, for reasons which have not transpired, and the final consummation of the scheme is thought by many to be rather doubtful. The so-called "Insulated" lines require a thorough and complete change in their insulation to put them in good working order. If this were done there is no reason why they should not do a good business, as the lines are otherwise well built and over a favorable route.

The Franklin line is doing a large business, considering its limited facilities.

The Bankers' and Brokers' lines are crowded with business to a rather inconvenient extent, at the present time, but this will be remedied in a short time by the construction of additional wires. The Franklin Company will probably put up one or two more wires, in case of the failure of the negotiations now pending with the Insulated Lines company.

We hear of a number of other projects which are hardly yet in definite shape, which will at a future time call for further notice.

It is very evident that the Western Union Company do not propose to give up any portion of their large and lucrative business without a struggle, and they have by no means been idle during the past year or two. The wires on the stage road between this city and Albany have been transferred to an entire new line along the Hudson River Railroad, and a well-constructed line of five wires was put up along the Harlem road less than three years ago, while the lines this company are now working between New-York and Pittsburg are not excelled by any in the country. West of this point, however, there is a great deal of room for improvement.

We are glad to see that the tendency at the present time is towards improved construction and insulation, and we look forward hopefully to the time when lines will be built solely for the purpose of telegraphing, and not altogether for the benefit of the pockets of contractors of questionable integrity.

The Telegrapher and The Herald.

The editor of *The Telegraphic Journal* is disgruntled to the extent of nearly a column on account of the extract from *The New-York Herald* relative to the Atlantic cable and the Russian extension, which we printed a short time ago. He copies it himself, and then proceeds to lecture us in good set terms, thus :

"This extract is about as precious a piece of literature as we ordinarily find furnished us these fine spring mornings, and bears so obviously the marks of its origin to prove where it was born. The adoption of it by THE TELEGRAPHER puts us in mind of a telegraph pioneer whose Milesian name used to be flaunted very freely in the papers, but who has lately subsided into song-writing and a kind of telegraphic literacy. He had often his virtuous soul aroused by some unexpected reverse, yet hesitated to vent his wrath in those explosive oaths which liberate base souls and save their bursting. So he would, with flashing eyes and nervous gestures, commence: 'If I was a swearing man, I say, if I was in the habit of swearing I would say — D—damn him.' THE TELEGRAPHER does not like to lie, but is quite willing to injure, by another's falsehood, a huge interest it pretends to represent, quotes the cursing of another mouth and takes refuge behind it in the sole virtue of adding no language of its own."

The Journal asserts that we published *The Herald's* article as a "credited leader." We did no such thing. We published it in that portion of our paper usually devoted to articles of news and extracts from other papers. Our "leaders" are printed under the editorial heading on the inside of the paper, and thus far we have been quite competent to write them ourselves without being driven to any such exigencies as *The Journal*, which in its "leader" directly following the above-mentioned one, copies verbatim a lot of preposterous nonsense from that same *New-York Herald*, which states

that "the principle is now established" that with "important improvements upon the old Morse batteries and instruments," messages can be sent "direct from San Francisco to Paris without rewriting," and these wonderful batteries will transmit "ten times as many words per minute as the old batteries can send," etc., etc. This is copied without credit and without even quotation marks!

We wish it distinctly understood that we do not attempt to endorse or hold ourselves responsible for every opinion put forth by our correspondents or copied from other papers. It is even possible that we may one of these days copy something from *The Journal* itself!

Again our contemporary indulges in the following strain: "A paper anxious to speak correctly would likely seek for the truth of what it asserts. But with a puerile wantonness this champion of telegraphs picks up the Billingsgate of a vile press and sets it to the measure of its own little organ, finding it easier to tune its fiddle to a written song than to write a true one of its own."

The above is good—it is absolutely refreshing, in consideration of the fact that the previous number of THE TELEGRAPHER contained a "leader" (original) giving the whole history of the Russian Extension Telegraph enterprise, which *The Journal* finds it convenient to ignore altogether. If *The Journal* is really anxious for our views on the "Russian Extension" we refer him to that article.

THE Great Eastern has given another illustration of her abilities in the way of picking up cables—of which we have heard so much—by grappling no less than nine of the Western Union Company's North river cables at Fifteenth street, during her late visit to this port. Twenty-one conductors were rendered useless by the operation. This was a piece of culpable negligence on the part of somebody, for the steamer had been previously notified not to anchor in the vicinity of the cables. We should think in view of the numerous accidents of this kind that have happened to the cables at the Fifteenth street crossing, that it would be better to remove them further up the river to some point less frequented by vessels. The cables of the United States and Bankers' and Brokers' lines which cross respectively at Fifty-seventh and Fifty-ninth streets have met with little or no trouble of this kind. The breadth of the river is considerably greater in this neighborhood than at Fifteenth street, and the original expense, of course, proportionately more, but the expense arising from the repair of these breakages, and the loss and detention of business must more than equal the difference.

The Journal charges us with garbling Mr. Orton's letter to the Secretary of State, respecting the abandonment of the Russian Telegraph, which we published in our last impression. We inserted it as we found it in the columns of the *Tribune*, which was the first paper containing it that came into our hands. On comparing this with the *Journal's* copy we find nothing in the portion omitted of sufficient importance to warrant the special prominence given to the fact by our contemporary. As we were not favored with an official copy of the correspondence, our readers will, we trust, forgive us for the unintentional omission of a portion of the rhetorical flourishes respecting the Atlantic telegraph with which the letter was embellished.

Personal.

We acknowledge the receipt of wedding cards from Mr. and Mrs. Wm. H. Sawyer. Willie's innumerable friends in this vicinity will join us in wishing them prosperity and every happiness. Mrs. S. probably doesn't need our assurance to convince her that she has drawn one of the prizes in the matrimonial lottery—but it's a fact, nevertheless.

JAMES H. BLAKE, operator Western Union Telegraph Co., Boston, has resigned his position, to take effect April 30.

C. F. HUTCHINSON, operator Insulated Lines, Providence, R. I., has been discharged, and C. J. Sheehan appointed in his place.

R. H. SMITH, who has for some time been operator upon the "cable wire" at the Western Union Office in this city has been removed, and A. W. Orton, late of Beaver street ("F. X.") office appointed in his place.

MESSRS. SHEPHERD and Korty, of the Western Union Telegraph Office at Houston, Texas, have secured the exclusive right to post advertisements in the cars of the principal railroads in the State. It will probably prove quite a paying investment.

J. H. KINGWILL of Springfield, Ill. U. S. Office, has gone to Adrian, Mich. Office. G. W. Clow has accepted place vacated by Kingwill.

H. S. MARTIN has been appointed Night Manager Boston Office, W. U. Telegraph Co., *vice* Ashley, transferred to day work.

STEPHEN BARTON has accepted a position as operator with the W. U. Telegraph Co. at Port Hood, C. B.

M. DEAN has been discharged from the I. & M. Chicago Office. Wm. Foley accepts the place vacated by Dean.

M. C. F. Hatch, General Superintendent M. S. R. R., and a telegrapher by profession, has moved his headquarters from Toledo to Chicago, and has placed a telegraph instrument in his house on Twenty-sixth street.

C. A. JAMISON has been appointed Night Operator I. & M. Co., Peoria, Ill., *vice* Cogger, gone to Omaha.

W. M. SPINK, of Montreal, has accepted a position in the Chicago Office (W. U. Company).

THE Governor of Ohio has appointed John B. Wright State Commissioner of Railroads and Telegraphs, under the new statute.

COL. W. H. HEISS, Superintendent of the International Ocean Telegraph Company, arrived at Savannah, April 10th by the San Jacinto with the balance of the materials, implements, and operators for the expedition to construct the line from Lake City to Punta Rosa, better known as old Fort Dulaney, at the mouth of the Caloosahatchie River, from whence it is to connect with Havana *via* Key West. It is proposed, if possible, to have direct telegraphic communication with Cuba by this line some time in June. The material has been already shipped for Florida. Captain John A. Bailey, formerly of the United States Lighthouse Engineers, accompanies Col. Heiss as engineer. They will commence operations at four different points, Punta Rosa, Ocala, Gainesville, and Baldwin. The marine line will be laid in May.

MR. M. V. B. FINCH, formerly manager of the American Company's New-York Office, proposes a plan for transmitting gold and stock quotations by telegraph to any required number of offices or banking houses in any part of the city simultaneously, by the use of a single wire. An apparatus for accomplishing the same result was invented two or three years ago by Mr. F. L. Pope, who was then employed in the engineer's office of the American Company, under the direction of Gen. Lefferts, but, for some reason, it was never put in practical operation.

ELECTRICITY will go around the world twice while a man walks two yards.

PROF. J. R. SLOANE, of Philadelphia, gave a very interesting lecture on the science of electricity as applied to telegraphy in that city on the 18th ult. The lecturer displayed a thorough knowledge of the subject, and his remarks were received with gratification by the audience generally, and more particularly by the telegraphic fraternity, a number of whom were present.

THE telegraph match between P. H. Burns, the champion operator of New-England and New-York, and Mr. D. P. Bleakney, of Pittsburg, has been postponed for the present. Mr. Burns has expressed his willingness to make a match with any operator in the United States for any amount less than \$300, one-half of the money to be donated to some charitable institution; the number of words to be sent not to exceed five hundred, to be selected from *The New-York Herald* or some other paper.

AN operator in Galveston, Texas, named Cowen, was accidentally shot, by an associate, on the 9th ultimo. The ball entered his mouth, and made its exit out of the left cheek, inflicting a painful, though not a dangerous wound.

Telegraphic Miscellany.

WANTED.—Numbers 2 to 7 inclusive, and also No. 16 of Vol. I. of *THE TELEGRAPHER*, for which we will pay any reasonable price.

Also numbers 46 and 47 of Vol. III.

NOTICE.—The regular monthly meeting of the New-York District N. T. U. will be held at the Occidental Hotel, 622 Broadway, Tuesday evening, May 7th, at 8 o'clock.

W. H. H. CLARKE, Dist. Director.

THE Western Union line at Hebronville near Providence, R. I., was torn down by a boiler explosion in Knights' cotton-mill on the 17th ult. A section of the boiler was projected with such force as to cut off a pole and tear up the railroad track.

THE first thunder-storm of the season came off on Monday, the 22d instant. It created a rather lively snapping about the telegraph instruments for an hour or two, but we heard of no damage resulting from it.

THE office of the Franklin Telegraph Company at Springfield, Mass., has been removed to the Republican block on Main street.

AN amusing incident occurred in Albany recently. While a gang of men were stringing wire from a reel in a wagon, the horse being driven along slowly, a countryman rushed up to the driver, and, in the innocence of his heart, informed him that he was *losing his load*; that his wire was scattered all along the road behind him.

The incident happened near enough to the first of April to pass for an April fool joke.

THE bill incorporating the National Telegraphic Union passed the Senate on the 9th instant, and will undoubtedly receive the signature of Governor Fenton.

CONGRESS has passed a bill granting to the American Atlantic Cable Telegraph Company of New-York the privilege of landing its cable at any points on the Atlantic coast, excepting Florida.

THERE are thirty-three operators employed in the Central Telegraph Office at Chicago, Ill., and one hundred and fifty-four Morse instruments are now in use in that city.

A BILL has been introduced into the Massachusetts Legislature to incorporate the Boston and New-Bedford Telegraph Company.

A FIRE at Cedar Rapids, Iowa, April 14th, destroyed the offices of I. & M. and U. S. Telegraph Companies, with their contents.

CAMBRIDGE, Mass., proposes to have a fire alarm telegraph at a cost of \$12,000.

THE Western Union Company's Office in the old State House, Boston, is being remodeled.

J. T. SMITH, of the Independent News Room, Boston, has lately rebuilt his telegraph line between Boston and Hull, and now uses it for reporting ship news.

THE electric telegraphs in Victoria are in the hands of the Government. There are seventy-three stations in the colony and 2627 miles of wire.

THE Washington correspondent of *The Times* says that the telegraph company has realized about \$20,000 in tolls on messages from the horde of office-seekers who are after the Louisiana marshalship, which is said to be a "big thing."

THE Illinois and Mississippi Company's shops, at Ottawa, Ill., have made two fine pocket instruments, and forwarded them to the Paris Exposition.

THE class of telegraphic students at Newark, Ohio, who were "let in" by Mr. Q. Ross Gordon (not Enos), once of New-Haven, have succeeded in capturing his box of instruments, which were at the express office, directed to Chambersburg, Pa., and are going ahead on their own hook. Success to them.

THE question has been widely asked, Why, amongst the shower of electrical telegraph honors, none should have been bestowed upon Mr. Wheatstone, the inventor of the system? It appears that the discoverer, unable to work his patent for want of means, sold it to some capitalists, who have consequently made large fortunes.

By using delicate gold electroscopes indications of static electricity have been obtained from living blood, nerve tissues, and muscular fibre.

It is reported that after the close of the Paris Exhibition the "Great Eastern" will be taken by the French Transatlantic Telegraph Company, and employed to lay the cable between France and America.

THE Lowestoft-Norderney telegraph cable is completed, and is in perfect working order. The insulation of the four wires composing the cable is said to be excellent. Direct communication is established with London, and the line will be opened for traffic immediately.

A PROPOSAL has been made to construct a telegraph from Guadur, on the Mekran coast, to Bunder Abba, and thence to Isphahan, there to join the Indo-Persian telegraph, and serve as an additional line in case of accidents to the present line.

THE two Atlantic cables can send fifteen hundred messages a day. Each cable can transmit from fifteen to twenty words a minute. Twenty Daniells' cells are used; from fifty to five hundred have been used on the cable of 1858.

MR. SPILLER, of the Woolwich Arsenal, has remarked that the barrels of the rifles used by the Volunteers there are strongly magnetic. The range at which they are fired is situated due North and South.

On the 12th ult. a telegraphic cable was sunk in the Neva, for the purpose of establishing telegraphic communication between the banks of the river.

THE Atlantic cables are earning more than sufficient to pay the preferential dividend of 25 per cent to the Anglo-American section of the property.

TELEGRAPHIC communication between passenger and guard is to be introduced on the Great Western Railway in England, on a plan invented by Mr. Spagnoletti.

M. GERARDIN has described a battery of iron turnings. The zinc of a Bunsen's battery is replaced by iron borings. The iron is placed in common water. The porous vessel contains a solution of perchloride of iron in *aqua regia*. The positive pole is made of powdered coke agglomerated with paraffine.

THE posts used by the French Telegraphic Company are carbonized at their ends, for the sake of preservation, by an enveloping jet of flame, from a new machine invented by M. Hugon.

THE TELEGRAPHER.

In compliance with the new International Telegraphic Convention, the administration of Swedish telegraphs have just published in the French language a report on the organization of the national telegraphs. From that it is seen that the extent of the lines, which in 1853 was 70 kilometres, had in 1866 reached 5756. In 1853 the number of messages was only 851, while in 1866 they amounted to 418,744; namely: home messages, 268,128, and foreign, 150,616; the total receipts from which had been equal to 938,554 francs.

A COPENHAGEN letter says: "In the spring of last year Mr. Wyld, M. P., obtained from the Danish Government a concession for the establishment of a line of telegraph from Copenhagen to Iceland, and thence through the north of Europe to America. Owing to the financial crisis, it was found impossible to carry out the scheme within the time specified, and the deposit money, according to the terms of contract, was therefore forfeited. Owing, however, to the interposition of Sir Charles Murray, a fresh concession was granted Mr. Wyld."

THE Emperor of Austria has granted to Sir Charles Bright and Mr. Acton Ayrton a concession for laying and working a submarine telegraph line between Ragusa and Malta, or Ragusa and Corfu.

METALLIC conductors, plunged into the earth, are polarized when they have been traversed by a current; the earth behaves entirely like an ordinary liquid conductor; the currents of polarization are weakened nearly in proportion as the resistances employed increase. The polarization is stronger when the current goes from the copper to the iron by the soil.

THE Pacific and Atlantic Telegraph Company have leased the Merchants' National Telegraph Company's lines from Pittsburg to the oil region, and they are now worked in direct circuit to Baltimore.

THE Chicago Fire Alarm Telegraph has 115 signal stations, and its expenses during the past year were \$18,156. In his annual report, Mr. E. B. Chandler, its efficient superintendent, recommends the increase of the signal-boxes to the number of 200 or more. He also urges the importance of placing the wires upon poles along the streets instead of running them over buildings as at present, a plan which renders them peculiarly liable to interruption.

The London Daily News says that the number of messages sent through the Atlantic cable continues to increase, and the receipts now average about £1150 per day.

THE lines between Chicago and St. Louis and Chicago and Omaha, formerly belonging to the United States Company, are still being run by the Western Union Company, under the old name, in opposition to the Illinois and Mississippi line, the latter company having declined to purchase them at the price charged by the Western Union Company.

Two new wires are being built along the Chicago and Northwestern Railroad from Chicago to Milwaukee by the Independent Telegraph Company. They will probably connect with the Pacific and Atlantic lines, which, it is stated, will reach Chicago by July.

THE Portland people have to submit to some close packing since the great fire. In the room occupied by the Western Union Telegraph Office, which is about 80 feet by 20, there is also a periodical depot, a railway ticket office, two express agencies, a real estate agency, an office for the redemption of mutilated currency, and the waiting-room, superintendent's, treasurer's, and auditor's office of the Horse Railroad Company. That corner must present quite a business-like aspect.

THE Western Union Company have just completed a new mast on the western bank of the Kennebec River a few miles above Bath, at a cost of \$300. It is 175 feet high, and the insulator, which is as large as a six quart jar, is 226 feet above high water; the insulator on the mast on the opposite side is 219 feet above the water; the river is 1400 feet wide at this point (being the nar-

rowest in the vicinity), and is crossed by a No. 16 steel wire made expressly for the purpose, and since its erection has never been broken. Before the use of the steel wire the line was broken quite often, and as it could only be repaired at still water (the current being very strong) great delay frequently occurred.

THERE are in Maine at this time about 1500 miles of telegraph wire and 76 stations. If the Western Union Company run another wire this summer, as is expected, this amount will be increased to about 1800, and upon the completion of the International Company's lines to Calais to about 2300 miles.

WE are informed that the telegraphic school of the Iron City Commercial College at Pittsburg will shortly close. This was about the only institution of the kind in the country which has ever attempted to give its students a practical knowledge of the real duties of an operator's position.

IN 1859 an unsuccessful attempt was made to place Tasmania in telegraphic communication with the continent of Australia; since that period an increasing connection between the colonies of Victoria, New-South Wales, South Australia, and Queensland has suggested the desirability of a renewal of that effort. The subject is to be brought before the consideration of Parliament of the colony this session.

THE diminution of the charges for telegraphic messages in Paris, as well as other parts of France and the Continent, has produced an enormous increase in the number of messages, and the increase is still growing. May shows the largest increase, the receipts having been only 486,577f. in 1865, and 584,832f. in the present year, an increase of 150,000f., or more than one-third in twelve months.

IT is proposed to lay down a submarine telegraph cable between the Tyne and Denmark. In anticipation of the cable being laid, the Governments of Denmark, Sweden, and Norway are putting up all the requisite land wires. The new cable, which will come from a Tyneside manufactory, will be laid in a few weeks.

A PORTION of the submarine telegraph cable between the mainland and the Balearic Islands being recently taken up, a quantity of oysters were found attached to it. This leads to the inference that the oyster might be propagated on the Spanish coast if proper beds were established for it.

BARONETIES have been conferred on Mr. D. Gooch, M. P., director of the Telegraph Construction Company, chairman of the Great Ship Company, and chairman of the Great Western Railway, and upon Mr. Simpson, the vice-chairman of the original Atlantic Telegraph Company, whose faith in its ultimate success never forsook him. Mr. R. A. Glass, Mr. S. Canning, and Professor William Thomson have been honored with knighthood.

A COMMISSION has been sent to Europe from Peru by the last mail, charged with making arrangements for establishing a telegraphic line across Ecuador, Peru, Bolivia, and Chili.

THERE are 1000 telegraphic offices in Europe. Africa is connected with the continent by two lines. Egypt and India have each two routes. The latter contains 161 stations; the island of Ceylon has four more. Dispatches for China pass through Russia, thence to the frontier towns in Tartary, where, received by horsemen, they are delivered through the empire, reaching Pekin.

ON the 1st of February, 1866, there were in Great Britain and Ireland 1533 telegraph offices; in France, 1419; in Prussia, 852; in Italy, 699; in Austria, 605; in Bavaria, 328; in Switzerland, 253; in Spain, 223; in Russia, 167; in Baden, 187; in Wurtemberg, 141; in Sweden, 113; in Hanover, 102; and in Norway, 99.

BY a parliamentary paper recently published we find that there are now in India 14,500 miles of Government telegraph, and that the cost of these lines has amounted

to upwards of one million and a quarter sterling. There are eighty railway companies in India, all of whom have also constructed lines of telegraph, the united number of miles being 3141, and the cost nearly half a million.

A TELEGRAM from Washington says:

"The Western Union Telegraph Company propose to Congress to furnish wires for the proposed experiment of a Government telegraph line between certain points. The company will make but a small charge for the use of its offices and wires, and the Government will be saved a large outlay to commence with."

WILD'S large magneto-electric machine when used with the "quantity armature," will melt an iron rod fifteen inches long and one quarter of an inch thick.

FISHING BY TELEGRAPH.—The greatest novelty in the use of the telegraph is the Norwegian herring fishery. The deep sea fisheries from the Naze to Varanger Fjore extend over a range of 1200 miles; and some of them are variable, both as regards time of year and locality; others recur at stated periods, but with lesser oscillations with respect to time and place. The population directly and indirectly interested in the fisheries is probably not less than 150,000; and the fishermen actually engaged in them at one time not less than 60,000. These latter move to and fro with their boats along the coast, and formerly—before the telegraph was impressed into their service—the inability to test the accuracy of the reports they heard, and the great distance they had to traverse before reaching the neighborhood of the shoals were the cause of endless disappointments and failures, and the catch was frequently lost for want of hands to capture the fish. This is now all changed as far as the herring fishery is concerned. Telegraphic stations are erected at different points on the coast, and the inspectors cause daily notice to be given of the appearance and position of each shoal.

"Field" telegraphs are kept in readiness to be joined on to the main line, and thus the slightest movement of the shoals is carefully watched and communicated; and it is a curious sight to witness the sudden exodus of thousands of fishermen, with their train of buyers, salters, etc., with boats, barrels, appliances, hastening to a distant place at the call of the wire. The men seem to prize highly this valuable coadjutor, and when the catch is chiefly attributable to its agency they call the fish "telegraph herrings." And thus the benefit likely to accrue from the use of the telegraph is incalculable.

TO CORRESPONDENTS.—A. S., London, C. W.: Chas. E. Perry is superintendent. A letter addressed care of A. & P. Co., 155 Broadway, N. Y., will reach him. When writing on your own business, don't forget to inclose return postage, if you wish an answer by mail.

• • • • •
MARRIED.

• At Lockport, Ill., April 17th, by Rev. C. A. Gilbert, Mr. C. H. Seaver to Miss Hattie Gilbert.

On the evening of the 11th inst., at St. Paul's M. E. Church, Wilmington, Del., by the Rev. Aaron Rittenhouse, Mr. William H. Sawyer, of New-York, to Miss Bella O. Baird, of this city.

In Beverly, West Virginia, April 2d, 1867, at the residence of the bride's father, by Rev. Mr. Scott, Mr. George W. Printz, of Zanesville, O., to Miss Hattie E. Crawford, of Beverly.

At Huntsville, Ala., March 22d, by the Rev. Thomas Johnson Superintendent Seventh District, W. U. Tel. Co., to Miss Melzie Horvell, of Huntsville.

May the electricity of love never be wanting to complete the circuit of conjugal happiness, and the magnetism of mutual attraction be the best bond of sympathy to connect two hearts of gold.

At the residence of the bride, in DeKalb, Ill., April 14th, by Rev. Dr. Denning, Mr. William Reed, of Blackberry, to Miss Libbie Young.

In Brooklyn, on Thursday, April 25, at the residence of the bride's mother, by Rev. Dr. Diller, John Horn, Jr., to Miss Josephine Wiswall. No Cards.

• • • • •
DIED.

At Gainesville Junction, Miss., on the 9th of March, C. Bruce Dickinson, of typhoid fever. The deceased was a member in good standing of the Memphis District.

THE POLAR TELEGRAPH.—An extremely delicate yet simple instrument has been perfected by Mr. George Little, an English inventor, with the aid of Mr. E. S. Hidden, of this city, for indicating the faintest currents of electricity, with their continuance, and thus spelling the characters of the Morse alphabet to the eye. It consists of a glass needle with a hollow bulb at its centre, poised and floating erect on the surface of alcohol which partly fills an upright tube of glass, the ends of which are hermetically sealed. Around the bulb is a little band of copper, and around the tube a corresponding band a very little lower down. The lower part of the tube is surrounded by a coil of fine copper wire. By communicating a current through the coil to the band on the cylinder the latter is magnetized and attracts downward on the band on the needle or indicator, which is thus inclined to the north or south according to the character of the current, and retained in that position precisely until the current is withdrawn. The extreme delicacy of the poise and movement of this indicator causes it to betray the faintest possible trace of electricity in the conductor. The most marvellous illustration of its susceptibility that could be imagined, is afforded in the transmission of distinct signals through several hundred miles of wire, from the miniature galvanic battery composed by placing the tongue between a bit of copper and another of zinc. A successful experiment has been made through the submarine cable between England and France. The importance in submarine telegraphy of an indicator so obedient to the faintest currents need not be pointed out.—*Scientific American.*

THE CEYLON TELEGRAPH CABLE.—In 1863 the English Government sent to India several lengths of india rubber covered wires for practical testing. The results obtained with Mr. Hooper's wire were such that the Government ordered, in 1865, several lengths for river crossings in India; this is considered to be the severest trial to which any telegraph cable can be subjected; and this can be easily understood, when, during the summer months, the beds of these rivers are quite dry, and the cables consequently exposed to the direct action of the sun. In 1866 Mr. Hooper supplied further lengths, one of which has been successfully laid, by the Government staff, between India and Ceylon. The construction of this cable is as follows: A stranded conductor, formed of seven wires, weighing 180 lb. per nautical mile, and insulated to .38in. diameter, forms the core. The core, after being served with hemp, is covered with twelve galvanized iron wires, each wire measuring .2in. diameter for the main portion, and .25in. for the shore end. These iron wires were further protected by the hemp serving and bituminous compound introduced by Bright and Clark. The shore end measured eight and the main cable twenty-seven nautical miles. The Ceylon cable, made by Mr. Hooper, was sent out without water tanks; so that not only may the expense of water tanks be possibly dispensed with by the use of india-rubber, but fifty miles of Mr. Hooper's core, coiled on drums, have also been sent out, on another occasion, without tanks.

The electrical fuse for firing blasts is in very satisfactory use in Europe. The engineer at the Aet tunnel (Innspruck and Bozen Railway), states that thirty holes of great depth have been blasted simultaneously by this apparatus.

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It is not confined to any one policy, but will seek to correct abuses, give honor and praise wherever and whenever due, and endeavor to elevate the standard of operators, both morally and scientifically.

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At No. 7 Exchange Place,

JERSEY CITY, N. J.,

Keeps constantly on hand and for sale his

IMPROVED TELEGRAPH INSTRUMENTS,

AT THE FOLLOWING PRICES:

Small Box Relay, \$16.

Same in Rosewood, \$17.

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Pocket Relays with all the adjustments of the above and good Lever Keys, \$22.

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Keys with tumbler circuit closer, \$5.50.

Hill's Battery, per cup, \$1.45.

All other appliances made to order. Extra spools for replacing such as may be spoiled by lightning, furnished at \$1.25 each. Old spools taken at the price of new wire by the pound. Goods sent to all parts of the continent with bill C. O. D. Or, to save expense of returning funds by express, remittance may be made in advance by certified check payable in New-York, or by Post-office order, in which case I will make no charge for package.

Aside from the advantages apparent upon inspection of these magnets, their acknowledged merits consist in the construction of the *helix*, which was patented Aug. 15th, 1865. This being of naked copper wire, so wound that the convolutions are separated from each other by a regular and uniform space of the 1-600th to the 1-800th of an inch, the layers separated by thin paper. In helices of silk insulated wire the space occupied by the silk is the 1-150th to the 1-300th of an inch; therefore a spool made of a given length and size of naked wire will be smaller and will contain many more convolutions around the core than one of silk insulated wire, and will make a proportionately stronger magnet, while the resistance will be the same.

CIRCULAR.

OFFICE OF THE BISHOP GUTTA-PERCHA CO.,
No. 113 LIBERTY ST.,
NEW-YORK, APRIL 2d, 1867.

THE Bishop Gutta-Percha Company of the City of New-York, having become by purchase in their own right, and as licensees, possessed of the sole and exclusive right of making, constructing, using, and vending to others to be used,

**THE IMPROVED
SUBMARINE TELEGRAPH CABLE,**

AND ELECTRIC CONDUCTOR,

Covered with a braided or plaited coat or covering, after the manner of a whip or curtain cord, as described in the schedule annexed to, and forming a part of the Letters Patent, issued to Francis I. Bridges, of the City of New-York, and dated March 22d, 1859; *Hereby give notice*, that said Company will prosecute all persons, companies, or firms making, using, or vending said Cable, or Conductor, without their permission or license.

N. B.—This Company is prepared to furnish the Braided Electric Conductor, or Cable, of any size or style required, at short notice.

The Bishop Gutta-Percha Company,

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ESTABLISHED 1831. CAPITAL, \$500,000

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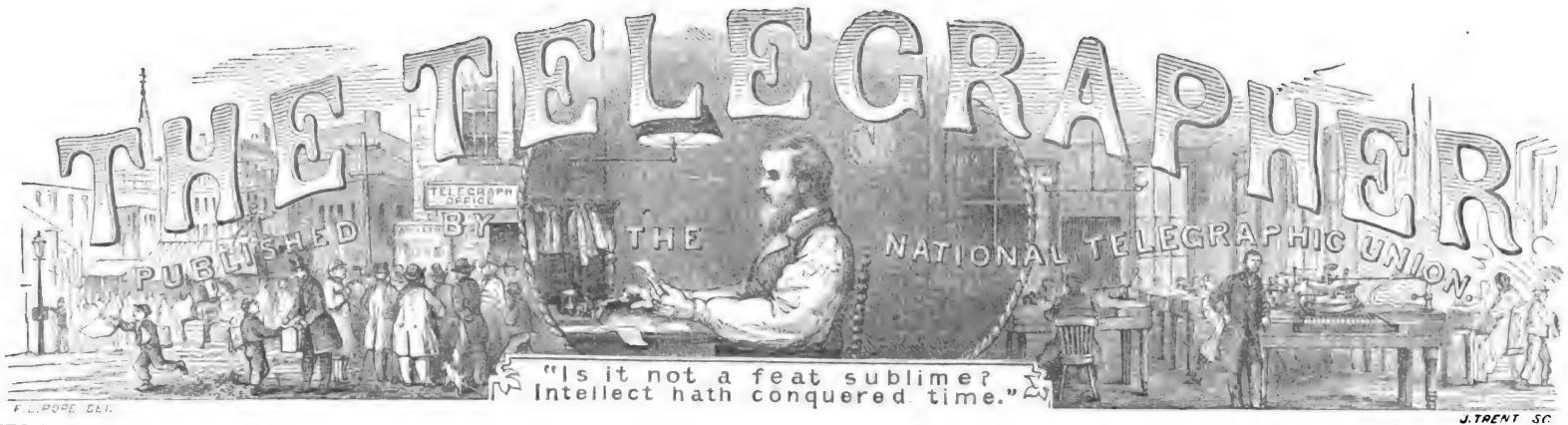
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Vol. III

New-York, Wednesday, May 15, 1867.

No. 52.

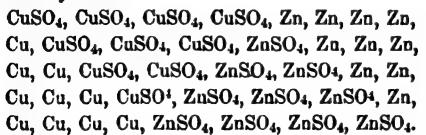
(Written for THE TELEGRAPHER.)

On the Sulphate of Copper Battery.

THE metals copper and zinc form the solid parts of this battery, the liquid being the solution of a salt—sulphate of copper. This salt, when deprived of all its water, is a chemical compound, consisting of copper and a hypothetical compound "sulphion," whose behavior in the battery is precisely the same as if it were a simple substance, as chlorine. This simple substance (copper) and this compound substance (sulphion) are held or bound together by a force called chemical attraction, or *affinity*; but the bond, in this case, appears to be a feeble one, for if clean iron or zinc be dipped into a solution of sulphate of copper, sulphion immediately leaves its combination with copper, and combines with zinc or iron.

Operators frequently observe a considerable deposit of copper-colored crust over the zinc in the battery, but few know what it really is or where it came from. Many an operator has noticed with wonder that his knife-blade has been coppered over after having used it about his battery. Metallic copper is sometimes obtained or manufactured from springs of water strongly impregnated with sulphate of copper flowing from certain mines by simply treating it with scraps of iron.

In these several instances the sulphion simply obeys the law of elective affinity—that is, having a stronger attraction for the zinc or the iron, as the case may be, it severs its union with the copper and combines with them, forming a new compound sulphate of zinc, or sulphate of iron. Such changes may be represented graphically by means of chemical symbols thrown into formulas. Thus Cu is the symbol of copper, SO₄ (one atom of sulphur combined with oxygen four atoms) symbolizes the molecule and sulphion, Zn zinc, CuSO₄ and ZnSO₄ the molecules sulphate of copper and sulphate of zinc. Now these symbols stand also for the proportional parts by weight in which combination and separation take place. Let us suppose, for instance, that we have four proportional parts of dissolved sulphate of copper, and that we immerse therein four proportional parts of zinc, then these five lines of formulas will represent the changes as they successively occur:



The first line of formulas shows the relations of the several atoms and molecules before any change has taken place; the second represents every molecule of sulphion as having changed partners and swung half-round towards the right, the last one to the right having selected for its partner an atom of zinc, the combination producing a molecule of sulphate of zinc, an atom of copper being simultaneously eliminated to the left, and becoming free; the third line shows a second chain of similar changes—a second molecule of sulphate of zinc formed, and a second atom of copper eliminated, and so on; the last line showing all the zinc combined and all the copper elimi-

nated, there being now the same number of molecules of sulphate of zinc as there were originally molecules of sulphate of copper, and the same number of atoms of free copper as there were atoms of free zinc at the beginning.

Now this action takes place in all the forms of the sulphate of copper battery whenever the sulphate of copper solution is allowed to come in contact with the zinc, and is technically called *local action*; but it does nothing towards the production of a current of electricity, and is, therefore, a waste of material. True, battery action consists in a combination of zinc and sulphion, and an elimination of copper—the latter appearing at the surface of another plate (called the conducting or negative plate) not having an equal attraction for sulphion, placed at a little distance from the zinc in the liquid. It takes place when there is a metallic contact between the two dissimilar metals, and does not take place when the contact is broken. Any arrangement by which true battery action could be made to take place only when it is utilized in a current, and local action entirely prevented, would constitute a perfect battery. Could the several parts be maintained in their proper relative positions, so that sulphate of copper solution should always be in contact with the conducting plate, and only sulphate of zinc solution in contact with the zinc, or positive plates (symbolically represented thus: Cu, CuSO₄, ZnSO₄, Zn), chemical action would take place only when the circuit is closed. Furthermore, there would be no local action, and consequently *no waste*.

There are three forms of sulphate of copper battery. In one local action goes on almost without abatement, whether the battery is or is not in use; in another the zinc is in a great measure protected from local action, while in a third it is almost completely so. In the form first mentioned copper is made a vessel capable of holding sulphate of copper solution, in which the zinc is suspended insulated from the copper. This arrangement allows a very close approximation of the metallic surfaces, thus interposing little resistance to the passage of the current of electricity. In cases where an inexpensive battery is required, as in the school-room, or in the hands of an amateur experimenter, and in other cases where economy of material is less an object than economy of space, and particularly where quantity of current, compactness, and a brief use are required, this form of battery answers an excellent purpose. But in such cases I think it would be well to protect, in some degree, the zinc from this wasteful local action. A slight coating of the zinc with whitewash, or a thin clay paste would be of some service when the zinc is new and clean. After the zinc has been once used there is generally a crust formed over it which protects it somewhat from local action. This should not be removed entirely, neither should it be allowed to become thick—only the thinnest film should be suffered to remain.

There are two methods of protecting the zinc from local action which are much more effectual. In the so-called "Protected Sulphate of Copper Battery," the zinc

is not put directly into the sulphate of copper liquid, but into a porous cup containing a liquid which has no local action on it. Prof. Daniells, the inventor of this arrangement, used sulphuric acid diluted with water; but common zinc is as severely acted upon by this as by the other liquid. Amalgamating the zinc, however, prevents local action in diluted sulphuric acid, but will not in sulphate of copper solution. This, then, is the form known commonly as "Daniells' Battery," the invention consisting in using a porous cup to keep the sulphate of copper from contact with the zinc, the latter being amalgamated and immersed in dilute sulphuric acid contained in the porous cup.

Telegraphers, when they came to use this battery, discovered that practically they might dispense at once with the acid and the amalgamation of the zinc, using a sulphate of zinc solution in the porous cup, which produces no local action on the zinc, and this is the form of the local battery now generally used in this country.

While the employment of the porous cup and a different fluid is a great improvement on the one in which there is no porous cup, it by no means accomplishes completely the desired object—the prevention of the *local action*. It is a demonstrable fact that if two different liquids—even two different gases—are separated by a porous partition, they will inevitably mix, one passing one way and the other the other way, rapidly or slowly, according as there is greater or less porosity of the intervening wall. Thus it happens that in the so-called protected battery sulphate of copper finds its way in some measure within the porous cup, and consumes the zinc to that extent wastefully; while, on the other hand, sulphate of zinc passes outwardly, and eventually saturates the outside liquid, which crystallizes, and thenceforth refuses to dissolve any more sulphate of copper, and the battery ceases to work until this liquid is renewed.

There is, however, a more philosophical, and at the same time more simple and effectual method of protecting the zinc from local action.

In the midst of a considerable experience in the use and management of the common form of the sulphate of copper battery, it was observed by the undersigned that when there was no provision made to prevent it the sulphate of copper was first withdrawn from the top of the solution in the containing vessel, and that when once this condition had obtained, considerable force exerted in stirring was necessary to restore the diffusion. The practical idea thereupon suggested itself; why not discard the porous cup, place the cup in the bottom of the containing vessel, where experience had taught that the sulphate of copper maintained itself the longest, and suspend the zinc in the top, where it would be the least exposed to local action? A practical test, and indeed a constant use for more than four years in both main and local circuits, has demonstrated this form of the battery to be at once the most efficient for preventing local action when managed intelligently, and therefore the most economical, the most constant, durable, and easily managed of any battery in use. Practically there is no action on the zinc except

when and to the extent that a current of electricity is generated. There is, therefore, no waste of zinc and of sulphate of copper, but these materials are consumed in very nearly the proportion equivalent to the work they do.

We here present a cut representing two cups of main battery, showing clearly its construction and arrangement:



The containing vessel is of glass, so that the action and condition of the several parts may be in clear and full view. In the bottom of the jar or tumbler the copper is placed, a protected (or gutta-percha covered) copper wire having previously been attached thereto—the wire rising perpendicularly to the top of the vessel, and projecting sufficiently to enable the necessary connection to be made with it. The zinc is shown suspended at the proper distance above the copper. A solution of sulphate of zinc (a pound to a quart of water for a local battery, half or quarter this strength for a main battery) is poured into the vessel until it is filled to the level of the upper surface of the zinc. After the battery is in place, the connections all made, and everything else in readiness, a small quantity only of sulphate of copper in crystals (never in solution) is dropped in carefully so that none of it may lodge on the zinc, but speedily fall to the bottom and there dissolve.

In the cut the deeper shading near the bottom of the jars represents the situation of the blue portion of the liquid. Great care must be observed not to agitate the battery or stir the solutions to get this blue liquid diffused, because, as has been shown, every molecule of sulphate of copper which is forced or allowed to come in contact with the zinc is lost in local action, wasting at the same time an equivalent of zinc.

It will be obvious, on a careful consideration of the chemical action which takes place in the several forms of the sulphate of copper battery, that continuous battery action must be maintained in full efficiency by both adding sulphate of copper, and removing sulphate of zinc in proper quantities from time to time as the former is exhausted and the latter accumulates. Whenever the sulphate of copper is exhausted from the cell, or from immediate contact with the copper, either zinc or hydrogen, or both—but generally the first—is deposited upon the copper, and the battery loses its power. On the other hand, whenever too much sulphate of zinc has accumulated, the water holding it in solution refuses to dissolve the salt as it is formed, and again the battery ceases to work.

It is easy in the former case, and not difficult in the latter, to know when to apply the remedy. The color of the sulphate of copper always reveals its presence, so that the practical rule would be, Always see that the layer of liquid in immediate contact with the copper is blue. The use of the hydrometer is a sure mode of determining the precise density of the sulphate of zinc solution; or, in other words, the amount of the salt which the water has dissolved, and its rise in the liquid to 40° , shows that water is imperatively called for; but only so much should be added as to cause the instrument to fall to 20° in a local battery, and to 15° in a main battery. The presence of crystals on the zinc infallibly denotes that the

point of saturation is very nearly if not quite reached. The want of transparency in the liquid, if it can be looked through in a good light, and its thick, oily feel, are good indications of its density to the practiced eye and touch. No battery will work without a due supply of water, and it is often owing to a neglect of this point that much trouble is experienced.

Whenever there is local action in any form of this battery, there is, of course, a deposit of copper or its oxide upon the zinc. When the zinc is not pure, as is often the case, the zinc itself will be dissolved out and the impurities left on the surface—often in an almost impervious state. In either of these cases there is interposed a resistance to the passage of the current and to the chemical action, small at first, but becoming constantly greater, until in time it may be a total one. The obvious remedy is to remove the scale before it becomes too much of a resistance.

E. A. HILL.

Chicago, May, 1867.

Thunder and Lightning.

THUNDER has long been suspected, rightly or wrongfully, of all sorts of mischief, which has furnished innumerable little paragraphs to the newspapers, much relished by non-scientific readers. But in the following narrative, read by M. Biot before the Academy of Sciences, and published by M. Leon Foucault, lightning is seen in the act of uncovering a passer by, of rummaging in his pockets, of deranging his watch, and taking his purse, while leaving him his life. The fire of heaven would be a very dangerous footpad to encounter, if it should take to repeating such rascally proceedings, for all was done in an instant, a flash, the millionth of a second, and in a way which defies the vigilance of the detective police.

"About eleven o'clock in the evening of Monday, the 17th of May," says M. de H., "I was returning home by the Rue Saint Guillaume, the Rue de la Chaise, and the Rue de Varennes, when a very loud thunderclap made me quicken my pace in expectation of a very heavy shower very soon. I had scarcely gone twenty paces when a second thunder-clap resounded almost at the same time that the lightning flashed. Large drops of rain began to fall; I was not more than two or three hundred steps from home and I began to run. Suddenly I found myself enveloped in an effulgence so powerful that I felt a keen pain in my eyes. A frightful thunderclap pealed instantaneously, and my hat flew ten yards from me, although there was not a breath of wind. The pain in my eyes was so violent, and my fear of blindness so cruel, that all my attention was turned to it, so much so that I cannot say that I felt anything else than the electric shock, properly so called, which was not indeed in itself very violent. The last thunder-clap was followed by a torrent of rain. The water which fell on my head dissipated very quickly the giddiness and dimness which had lasted about seven or eight seconds, and my joy was so great in seeing that I saw quite well that I cleared very quickly and very joyously the distance which still remained to be run over to reach home."

"When going to bed I took out my watch, and then perceived the tracks of the electric fluid across the left pocket of my waistcoat. In the bottom of the pocket was a hole through which I could pass two fingers, of which the sides appeared to be at once burned and torn. The waistcoat was of cashmere, the lining of glazed cotton, and the second inside lining of cloth. As I ran to reach home before the heavy shower my watch-chain formed in front a free circuit, jumping over my waistcoat; the lightning was attracted there probably by the middle, which was the lowest part of the curve, the part above, being fixed to one of the button-holes of my waistcoat, was not the least injured, whilst the swivel (*portemousqueton*) which held the watch had disappeared with the first two links of the lower part. The swivel was of silver like the whole chain, but it was furnished inside

with a small ferrule of steel, necessary to give solidity to the screw. As for the chain it was solid, and made in the form of a curb. Here are the remainder of the effects which I experienced:

"A broken gold ring, which united several gewgaws, was cut in five pieces. The steel watch-key, covered with gold-leaf upon the cannon, was completely carried away, all except the gold-leaf, which remained intact. A little compass in silver had had its poles introverted. As for the watch it had no exterior sign of having been injured, not even the link whence the swivel of the chain had been torn. But although the time was only half past eleven the hands marked three quarters after four. Persuaded that the main-spring or some other piece was broken, I left the watch upon the table intending to go to the watchmaker's in the morning. But in the morning I was advised to wind up the watch, just to see how far it was damaged; and I saw the hands move with a regular march which never varied, as if the lightning at the same time that it displaced the hands had unwound the mainspring and conducted it rudely to the end of its course.

"Near the watch there was, on the day of the storm, a little iron medallion from Berlin, surrounded with gold, and a little gold key of a piece of furniture. These two objects disappeared completely, carried away, apparently, with the swivel through the hole made in the waistcoat pocket. The chain, which had acted as conductor, did not retain any outward trace of the passage of the discharge. For myself I felt, on the morrow, only an extreme lassitude, like that from unaccustomed and violent exercise, without any mark upon my clothes or upon my skin.

"I ought to notice here a peculiarity of my dress, which may not have been without influence in the production of these effects. I have contracted in Spain the habit of wearing upon my shirt and under my waistcoat a band of red silk, which went for or five times round my body. Did not this band preserve me by determining the passage of the discharge by the surface of my clothes rather than by the interior of my body?"

M. Biot read this statement before the Academy, and the objects injured were exhibited—the little silver compass and the empty golden envelope of the key.

Certainly not upon evidence comparable with that which establishes the extraordinary narrative attested by M. M. Biot and Leon Foucault, but an excellent and credible hearsay testimony, we think it right to record the following statement. An American, who has the fact directly from an eye-witness, tells it us seriously. A stroke of lightning killed a man in a forest among the trees, and on his neck, on his white skin, there was distinctly and unmistakably seen a picture, with all their natural colors, of the trees through which the flash had reached him. It was a just photograph with the natural colors. Mr. Talbot, the inventor of the calotype, has produced a paper so sensitive that, when he placed a column of *The Times* upon the rim of a wheel and set it in rapid motion, he was able, notwithstanding in a dark room, to obtain a reproduction of several lines of the print in the instant occupied by the flash of an electric spark. But, should the fact we have narrated be examined, it may be found that the electrical power can display far greater marvels than have yet been dreamed of.

In a thunder-storm the clouds are mere non-electrics or conducting surfaces, positive with a negative sphere extending to the earth; and the discharge at a point from one large surface to another, is the lightning; or the earth is negative and the clouds comparatively positive, all bodies in the sphere of action are affected, and the stroke produces an extensive lateral action in all conductors, and affects all combinations of oxygen, etc., with weak affinities, such as beer, wine, etc., which require the protection of conductors. The cloud, the air, and the earth resemble the zinc, fluid, and copper in a galvanic combination. The human body and all animal bodies are electrical or galvanic combinations, and the

excitement is the principle of vitality and energy. The surfaces positively excited are those of the lungs and the skin. The lungs fix oxygen and are positive, while the skin fixes an equivalent and is negative. The circulations and secretions are intermediate results, and the action of the heart arises from proximity of positive arterial blood with the negative venous blood. The action exhausts itself, as it ought, in the system. Crossen enumerates the following circumstances which increase atmospheric electricity: 1. Regular thunder-clouds; 2. A driving fog and small rain; 3. Snow or brisk hail; 4. A shower on a hot day; 5. Hot weather after wet, and wet after dry; 6. Clear weather, hot or frosty; 7. A cloudy sky; 8. A motled sky; 9. Sultry and hazy weather; 10. A cold, damp night; 11. Northeast winds.

The Sabbath.

It is one of the drawbacks to the telegraph system that it has no Sabbath. At first, and for many years indeed, telegraph offices were closed when the day of rest came. The wires hung quiet in the air, the tick of the machine was unheard, the operator went with his family or friends to the place of worship, the messenger to his school. No one found fault with this. Nay, it pleased public sentiment. The Sabbath was for man. Labor everywhere honored it. The tired heart and limb of man and beast welcomed with gladness the day of rest. And to a system resembling omniscience, whispering from sea to river, that knew no space and took no note of time, the right of rest was unquestioned.

Pity it could not always have been so. But first came the claims of sickness and death. For these the offices were opened an hour. This was well. But a leak was made. The hour for charity and mercy enlarged, and now at all hours men are kept on hand for the message of death or speculation—it matters not which.

Pity it is so. Disrespect of the Sabbath degrades. It shuts up the windows of life. It closes the door through which refinement of character comes, and tends to hardness and brutality.

Cannot the doors be closed a little season in all the never-ending week? Must the Cottager's Saturday Night ever be a mockery to men engaged in that which vitalizes the whole earth? Cannot the *daylight* of one day in seven be hallowed to rest, and labor stop, and come with the coming and the going of the sun? Would it not be wise, beneficent, kind?—*Telegraphic Journal*.

Liability of Telegraph Companies.

SUPERIOR COURT — GENERAL TERM — MAY 6.

[Before MONELL, GARVIN, and JONES.]

Conrad W. Rose agt. The United States Telegraph Company.—On the 26th of August, 1865, Tack Brothers & Co. sent to the plaintiff a direction to sell 500 bbls. of oil at 5½ cents per gallon. This message was written by the senders on one of the printed forms of the company, which requires, to insure accuracy, that the sender shall have the message repeated at an additional charge of half rates. The message was received correctly in the company's office here, but by an error in transcribing read, when delivered to the plaintiff, 5000 in place of 500. The plaintiff paid for the dispatch. He sold 5000 bbls., and reported back, when he was at once informed of the error. By that time oil had risen 1½ cents, and the plaintiff, who had sold in his own name, compromised with the purchasers of 4500 bbls. at \$2680, the difference between the prices. Oil continued to rise and reached 60 cents. The plaintiff lost, too, his commissions on the 4500 bbls., amounting to \$604.06. For these losses he sued the company, and the court below rendered a judgment for the full amount of his claim. The defendant now appeals, arguing that there was no contract between themselves and the plaintiff by which they could

be liable for his losses in any case; that if there was any contract it was that contained in the printed form, and that under that they were not liable, as the message was not repeated; and that, even supposing them liable, the damages were too remote, not being the direct consequence of the error in the message. The plaintiff replies that a contract arose between himself and the defendants when they undertook to deliver a message to him, and that the money paid by him was the consideration of that contract; that the printed form was no part of that contract, as he did not see them until the contract was complete; and that his action, which resulted in loss of money and labor, arose directly from the negligence of the defendants. Decision reserved.

For plaintiff, Mr. John E. Parsons; for defendant, Mr. Lowrey.

An Act

To incorporate "The National Telegraphic Union Association."

PASSED BY THE LEGISLATURE OF MARYLAND.

SEC. 1. J. C. Upham, of Boston, Mass.; F. G. Churchill, of La Porte, Ind.; A. L. Whipple, of Albany, N. Y.; J. G. Riley, of Baltimore, Md.; G. C. Maynard, of Washington, D. C.; H. W. Wheeler, of Boston, Mass.; W. H. Kelty, of Frederick City, Md.; P. A. Stedham, of Baltimore, Md.; and A. K. V. Hull, of Cumberland, Md., and their associates and successors, are hereby constituted a body corporate and politic, by the name of "The National Telegraphic Union Association," and to be located in the city of Baltimore, Md., and by its corporate name shall have perpetual succession, with power to sue and be sued, plead and be impleaded in any court of law or equity of competent jurisdiction, and may have and use a common seal, and the same to change at pleasure, and be entitled to use and exercise all the powers, rights, and privileges incident to such corporation; receive gifts, subscriptions, and benefits, and to make such rules and by-laws as shall be necessary and expedient for the government of the association, and the same to alter from time to time in such mode as shall by the association be prescribed; provided always that such rules and by-laws shall be in no wise inconsistent with the constitution and laws of the State of Maryland or of the United States.

SEC. 2. The officers of this association shall consist of a president, vice-president, secretary, and treasurer, and an executive committee of five, and such other officers as the general interests of the association may require, to be chosen in the manner hereinafter provided. The five persons first named in section one of this act shall constitute the executive committee for the first year, or until their successors are elected or appointed, and they, together with the president and vice-president, shall constitute a quorum for the transaction of business. The objects of the association are hereby declared to be, the mutual protection in adversity of members of the telegraphic profession, upholding and elevating the character and standing of the profession, the development of the science of telegraphing, and the promotion and maintenance of the general interests and welfare of the profession and its members.

SEC. 3. Said association is authorized to establish a uniform system of fees for admission to membership, in no case to exceed ten dollars, and also a uniform system of dues, payable periodically at such intervals as shall be prescribed by the rules of said association, but such assessment of dues will in no case exceed the sum of ten dollars in any one year.

SEC. 4. Within seven months after the passage of this act, the corporators named in the first section of this act shall draw up or cause to be drawn up a constitution not inconsistent with the provisions of this act, for the government of said association, which shall be approved by a majority of said corporators, or if any refuse to act, then by a majority of the remainder; and said corporators shall also, within the space of seven months from

the passage of this act, give written notice, to each member of the association, of the time of meeting for the preliminary organization of said association (which notice shall be at least twenty days prior to the time fixed upon for said meeting) in the city of Baltimore. At said meeting the said constitution shall be presented for the inspection and examination of such persons as may desire to examine the same, from day to day, for the space of thirty days, or until the number of persons signing the same and becoming members of said association, according to the provisions hereinafter prescribed, shall have reached the number of fifty or more, in the discretion of the said corporators. Every person desiring to become a member of said association, while the preliminary organization is proceeding, shall be allowed to do so by the payment of a sum not exceeding ten dollars, and signing the constitution for the government of said association. When the number of persons signing the constitution and becoming members, as is hereinafter prescribed, shall have reached the number of fifty, they, or a majority of them, at a meeting appointed for that purpose, shall have power to proceed to organize the association upon a permanent basis, by the choice of officers and the adoption of such by-laws for the regulating of the association, not inconsistent with the provisions of this act, as shall be deemed expedient and necessary.

SEC. 5. Said association shall have power to confer honorary degrees upon such persons as may have or shall hereafter discover or invent any plan of improving the science of telegraphing, or shall through their exertions cause any changes to made in the manner of managing telegraph lines which may prove of benefit to the community whose interests are advanced by the use of such improvements or changes. The aforementioned honorary degrees in no case to be conferred excepting for the purposes hereinafter set forth.

SEC. 6. For the purposes of said association, and no other, said association shall have power to hold and convey real, personal, or mixed estate not exceeding in value the sum of one hundred and fifty thousand dollars.

SEC. 7. The legislature shall have power to alter, amend, or repeal this act at any time.

SEC. 8. This act shall take effect immediately.

THE CITY OF BOSTON INDICTED FOR MAINTAINING A NUISANCE ON BROAD STREET.—In the Superior Criminal Court in Boston, before Judge Morton, the case of the Commonwealth *vs.* City of Boston has been brought up. District Attorney G. P. Sanger, H. W. Paine, and Micah Dyer, Esqs., appearing for the Commonwealth; J. P. Healy, City Solicitor, for the defendants. This is an indictment against the City of Boston for maintaining a nuisance on Broad street by obstructing the sidewalk by the erection of telegraph poles thereon. The erection of the poles was admitted, and it was conceded that they constituted a nuisance unless they were lawfully there. The city claimed that it gave permission, under the statute in regard to telegraph companies, to the Insulated Lines Telegraph Company, a foreign corporation, to erect and maintain the posts; that they had a right under that statute to give that permission, and if there was any question of the right to give the permission to a foreign corporation they could still, under the statute, give such permission to the corporation as an association. The Commonwealth claimed that such permission could not be given to a foreign corporation; that the statute did not give privileges to any association; that it only subjected the association to certain duties, and further, under any view of the case, whatever privileges the city should grant to any corporation or association, the liability of the city to answer to any private or public wrong was expressly reserved by the statute. The court directed that a *pro forma* verdict of guilty should be taken against the defendants. The case is to be reported for the full bench.—*Boston Herald*.

Correspondence.

BUFFALO, April 21.

TO THE EDITOR OF THE TELEGRAPHER:

To-day is a bright and beautiful, and I might say a gala day, as well as a day of rest.

The canopy above reflects a glorious light, and the landscape, decked with fragrance and with beauty, reveals to the delighted eye nature's unfolding wonders.

That to-day is a gala-day can be ascertained by looking into the cheerful faces of the many people who are on the streets, freed from the cares of every-day life. The mechanic, the tradesman, the clerk and the telegraph operator, look forward with pleasure to the return of the Sabbath day, knowing that on that day, to many at least, they will be free from labor. Although the operator will, in imagination, hear the click, click of his instrument, and his hand involuntarily move as though to answer a "call," he finds that it is only imagination, and that in reality he is released from labor; and the weary brain and body finds rest in viewing the unfolding of nature's wonders, and inhaling the pure breath of heaven.

I am pleased to notice the fearless manner in which you advocate the rights of operators. The editorial in the last number of THE TELEGRAPHER, contains many truths relative to the manner in which operators are treated by the companies; still, the companies are not wholly to blame for the oppression which bears so heavy upon us. It is true orders are issued from headquarters so frequently, it is almost impossible to know which order is in force; but those who have charge of the various offices are not entirely blameless. Many operators, on receiving an appointment as manager or chief operator, soon forget that they were ever operators, and put on such airs of authority and importance as to be unbearable. Instead of treating those under them as their equals, they say, if not in words, at least in acts, "I am greater than thou; stand aside." They imagine such acts ingratiate them in the favor of the managers of the lines, and thus expect to gain preferment. The hope of advancement has such great charms that they are willing to sacrifice the good-will of their fellows for the sake of gaining the coveted prize. Kind words and reciprocal acts tend to lighten the labors of operators, and all duties are performed more readily, and always cheerfully. When telegraphing was in its early infancy, manager and operator worked mutually, and there was real pleasure in a telegraph office; but now, how changed! instead of mutual forbearance there is crimination and recrimination, and operators feel that the dignity of the profession is fast waning, owing to a combination of circumstances which they are unable at present to control.

A good substantial opposition will partially, if not wholly, obviate the existing evils, for operators will then have it within their power to control what they may deem wrongs by a change. Although I would not advocate changing too often, still there are circumstances in which a change would be essentially beneficial. The old adage that "A rolling stone gathers no moss," is counterbalanced by the one which says, "A setting hen grows poor," therefore, I believe that circumstances and our knowledge of what is best for us should be our rule and guide.

I have faith in the ultimate restoration of the rights and privileges of the days gone by; and believe that we should so practice our art as to make ourselves experts; making ourselves so essentially necessary to the company for stability of habits and correctness of business, that they will restore to us our time-honored privileges; and viewing us in the light of intelligent and rational beings, admit us to a share of the rapidly increasing patronage which is so amply bestowed by a confiding public.

A paragraph appeared in the last number of THE TELEGRAPHER, stating that there had been seventy-five operators employed in this office within the last three

years. The statement is substantially correct, and the inference is that operators are of an erratic disposition.

Among the number employed were many who were afterwards removed for drunkenness and inefficiency. Others left to engage in more congenial pursuits, or to accept positions elsewhere; one or two were promoted (this proves the correctness of your remark, that "among those holding positions but few die, and none resign"), and one (John C. Bowles) died. He has gone to his long home. He traveled the "level of time" to that "undiscovered country from whose bourne no traveller returns," and whilst we drop a sympathetic tear over his grave, we revere and cherish his memory. O.

BOSTON, May 3.

TO THE EDITOR OF THE TELEGRAPHER:

In looking over number four of *The Telegraphic Journal*, I find the following:

"*The Telegraphic Journal* has promised its support to the 'whole telegraphic fraternity,' and shall be an independent advocate of the rights of all, be they individuals or corporations, and resent any scurrilous attacks upon them from whatever quarter they may emanate, though we shall not waste much paper and ink upon THE TELEGRAPHER, for 'its days are numbered,' and its final exit may be looked for at any time." One can but wonder at the stupidity therein displayed.

The most ready inference to be deducted from this citation of *The Journal's* position is, that those who are members of the Union are not members of the telegraphic fraternity, else why should not they as well as others enjoy the benefit of the brilliant talent employed upon its staff? The fact that members of the Union are *not* to be thus favored is most strenuously set forth in the concluding words: "though we shall not waste much paper and ink upon THE TELEGRAPHER," etc.

It is universally regarded as tending to the inhuman state of mind when the expiring moments of one's friend, even though erring, fail to call forth some expression of regret, some mark of the charitable feeling which is the characteristic of civilization; and to gloat with frenzied, glowing eyes upon dying agonies savors of a minion of the inquisition, not a resident of enlightened New-York, and a member by his own words of "the whole fraternity," that fraternity which more than any other is instrumental in diffusing the benefits of Christian civilization to untutored lands. The entertainment of such mean, small sentiment makes me blush for that whole fraternity who adopt their representative (self-avowed) in *The Journal*, and I rejoice that a ban places me and every true and honest man outside such a frivolous and tricky barrier.

But setting aside the cannibalistic indifference with which the editor or editors of *The Journal* regard the speedy demise of their early friend, and knowing nothing personally of them, I take it for granted that they are not criminals until proven guilty, and will abide by their own avowed position, and as a necessary consequence I call upon the journal to give THE TELEGRAPHER (which means the N. T. U.) a flattering notice in its own columns as an offset to the attacks which those columns have made upon the Union. Our right to this is undeniable, and disregarding entirely the good or evil of the Union, what it has or has not performed, and in spite of all protestations from *The Journal* to the contrary, we of the Union are members of the telegraphic fraternity, and deserve mention accordingly; and I think if the truth were known, setting aside the non-committals who have no bias to either paper, and reckoning by majorities as is our national custom, we are the *whole* of the telegraphic fraternity and the adherents to *The Journal* a *part*, and as a consequence that paper wholly false to itself.

As a secular paper, *The Journal* appears quite readable, though of minor interest to telegraphers as telegraphers, rather a paper for the public, and well for it that it is so; for observation has shown me that its strongest and most

prominent men are those who have figured as meanly absconding delinquents to the N. T. U., who have by deliberate and oft-repeated falsehoods allowed their dues to pass unpaid, and at last have been expelled for the small sum of *five dollars*—a ragpicker would show more honor. And in view of this it appears to me that the class of men who are so zealously supporting the new sheet, as they did the new Union, will be found at some unhappy moment minus their pockets to *The Journal* and plus the wanted amount in the next new thing that tickles their boyish fancy or gratifies their idiotic vanity.

I know that all true brothers, worthy of being telegraphers—not the debauched, worn-out libertines who make telegraphing a highway to disgraceful lives and loathsome deaths—but men who are true and honorable, who hold to what they have sworn, these men I know, in view of the ignorant, the narrow-minded and the dishonest men arrayed against us, will unite themselves still more firmly in the bonds of the Union which has, as the least of its good results, made us agreeably acquainted with many new and otherwise unknown friends and brothers, which has raised all, even *The Journal* editor, to a higher grade of thought than in the by-gone days of darkness and narrow ideas.

Our ideas grow with our circuits in acquaintance as well as telegraphing. A portion of the advantages of the N. T. U. are peculiarly moral and appreciable only to those who have the mental stamina to entertain them; and it is a sure stamp of a man's mental calibre if he is or is not able to recognize this portion of the benefits which the Union has conferred upon us. "73."

Humors of the Telegraph.

A CORRESPONDENT at Wilkesbarre sends us the following yarn which he vouches for as an actual occurrence:

"One of the 'Fenians' sent a message from this place, and went across the river to Kingston. On his way back, with about 'thirteen inches of corn whiskey' into him, he called for the answer, and was informed there was none as yet. He then said he wished to send a message to the husband of the woman to whom his former message had been addressed, saying at the same time, 'he's been dead six months, but that won't make any difference.' The operator protested against the absurdity of sending a message to a dead man, but he insisted with great vehemence and it was accordingly sent, from his own dictation, as follows: 'Why the devil don't your wife answer the message I sent her this morning?' This remarkable performance was transacted with all the seriousness imaginable on the part of the customer."

THERE used to operate in Providence a man known as "Jack" Bates, whose reputation as an operator was second to none. He was spoken of as a man who never "breaks." In his office was one of Farmer's repeaters, the sounder of which had a lever nearly five inches in length, and made considerable noise. This was situated on one side of the office, and was connected with the Worcester report wire. His receiving instrument was situated on the opposite side of the office some distance from the repeater. One evening while Jack was "slinging his quill" and smoking his pipe, P—, of Fall River, made his appearance and conversed with him for some time, being, no doubt, astonished at the style in which his friend transacted business and received visitors at the same time. Mr. P— inquired of Jack how it was he managed to get all the report without losing a word.

Jack replied in his dry way: "Well I do lose words sometimes, but always manage to catch them by the time they reach there," pointing to the repeater.

THE following occurred in Batavia, N. Y., a year or so ago: One of Batavia's belles entered the telegraph office and presented to the gentlemanly operator a communica-

tion, and requested to have it sent. The "smart electric agitator" requested her to append her signature, when she politely insisted that it would not be required as he knew her handwriting.

HERE is something from the coal regions that deserves a better fate than the paper basket. The following message was sent from an office in that ilk a few days ago:

"P—, 23d.

"To Rev. Mr. S— W—, Fn.:

"Come home to marry M. E. Stuart Thursday morning. Answer immediately.

(sig.) "Mrs. S— W—."

The worthy divine received the message in a shape which startled him considerably if not more. He doubtless thought he was going to lose his wife in a way quite popular now-a-days. This was it:

"Come home and marry me. Start Thursday morning."

Our correspondent is requested to call again at his earliest convenience.

District Proceedings.

MAINE DISTRICT.—Regular meeting, March 2. Meeting called to order at 8:15 P. M. District Director in the chair.

The resignations of J. A. Hanscom, of Bath, Me., and W. K. Starr, of Portland, were accepted, and these gentlemen allowed an honorable withdrawal.

A. F. Kingsley, of East Machias, was expelled for non-payment of dues.

There being no further business, the meeting adjourned.

NEW-YORK DISTRICT.—At a special meeting of the New-York District, on the evening of April 25th, a bill of rent of the meeting-room, concerning the responsibility for paying which there had been some question, was ordered to be paid from the funds of the District. The action of the Committee on Rooms in engaging one at the Occidental Hotel was approved, and a committee was appointed to sell the furniture now in possession of the District.

Mr. J. W. Stover was elected a correspondent of THE TELEGRAPHER.

Resolutions of the Corry District upon the death of Mr. O. W. Willis were read and placed on file.

By unanimous vote the thanks of the District were tendered M. B. Lillis for the faithful performance of his duties as District Director.

CORRY DISTRICT.—Meeting called to order at 9 P. M. Director in the chair.

Roll called, ten members answering to their names.

On motion, reading the minutes of previous meeting was dispensed with for the evening.

Director made a few remarks in regard to the condition of the District.

The District Treasurer, not having report ready, was excused.

Mr. Norman Cleveland, of Northumberland, Penn., was made member unanimously.

It was moved by Mr. Wade that I. I. Logan, be expelled for non-payment of dues, but, in consequence of interruption on the wires, no action was had.

Meeting adjourned.

Regular meeting, April 4.

Meeting called to order at 8:40 P. M. Director in the chair.*

Reading proceedings of previous meeting dispensed with for the evening.

Director made a few remarks in regard to condition of the Union, also of this District.

District Treasurer's report read and adopted.

Mr. Long moved that a new Executive Committee be

appointed, and that they proceed immediately to impose all fines now pending, etc.

On motion, the question was laid over for further consideration.

It was then moved that any member of this District changing his residence shall immediately notify the District Secretary of his address.

Meeting adjourned.

CALIFORNIA DISTRICT.—Regular meeting, April 15.

Eleven members present and six proxies.

Reading minutes last meeting and Treasurer's report omitted.

Resignation T. J. O'Keefe accepted, also that of H. N. Stevens.

No further business being before meeting, adjourned.

ST. LOUIS DISTRICT.—Regular meeting called to order, April 7th, 2:30 P. M. District Director in the chair.

Thirteen members present.

The minutes of the last previous meeting were read, and after the correction by the Treasurer of an error in his local report, they were approved.

The District Treasurer presented his reports of the local fund of the District and of members in arrears, which were accepted and ordered to be placed on file. The former shows thirty-one dollars and thirty cents in the local treasury, and the latter shows that the members of the District are in arrears to the amount of one hundred and seventy-five dollars and seventy-five cents.

Mr. Crain, from committee appointed to distribute District By-Laws, reported that a copy had been sent to each member of the District.

Report accepted and committee discharged.

Mr. McKenzie presented a bill for postage amounting to one dollar and eighty cents, which was allowed and payment ordered.

Communications from the New-York and Washington Districts notifying this District of the expulsion of members were read and ordered placed on file.

The resignation of Mr. I. McMichael was presented, but a motion was made and unanimously carried requesting him to withdraw it. As he was not present, it was laid over until the next meeting.

The resignation of Mr. J. H. French was also presented and laid over.

A motion was made and carried providing for a correspondent of THE TELEGRAPHER. Several nominations were made, but the parties declining, the election was postponed. Adjourned at three o'clock.

NEW FEATURE IN GAMBLING—SEIZURE OF THE IMPLEMENTS.

For some two or three weeks suspicions have existed in regard to transactions at room No. 1, 49 Tremont street. To all outward appearances the business there transacted was legitimate and legal. Upon the door of said room was a sign, "Dayton Copper Company," which room was on the second floor, having a front and back entrance. A few days since detectives Kirk and Littlefield, of the State Constabulary, visited the room and found the proprietor, one Nathaniel C. Goodwin, sitting at the table, upon which were ledgers and printed certificates of copper stocks. The officers inquired the state of the copper market, but received no definite answer, and finally made known their business, which was to search the premises upon a warrant from the Municipal Court. Upon investigation the officers found a spacious closet opening from the room, where a man was seated by the side of a telegraph machine. In the door of this closet was a small glass, colored, which gave the occupant an opportunity of seeing all that was going on in the room without being discovered himself. A wire from the telegraph machine passed out of the closet, under the carpet, to the desk where sat the man of business. When a victim was brought in he would be politely seated at the table with his back to the closet door. In playing the cards, the closet-man could easily see every-

thing "Mr. Greeney" held in his hands, information of which he immediately telegraphed to the man of business, who thus understood the "game," and of course easily fleeced "Greeney" of his little cash possessions. This concern is known among the fraternity as the "Independent Telegraph Company," and is in no way a "copper stock" concern.

The officers took possession of the telegraph machine and wires, and also seized four hundred chips, a silver deal box, cards, props, and among the latter three sets of "dead" props.—*Boston Herald*.

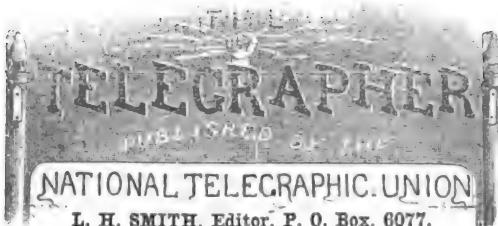
A NEW SOUTHERN TELEGRAPH COMPANY.—A new telegraph company, with the above name, and General E. Kirby Smith as its President, has been organized, with a capital of \$50,000, and is pushing ahead with considerable vigor. It will connect Cincinnati and St. Louis with New-Orleans and Mobile. At Cincinnati it will connect with the Atlantic and Pacific Telegraph Company, and with the Insulated Line will make a continued line from Canada to the Gulf of Mexico, competing so far with the Western Union. Over \$50,000 of the stock has been taken by the merchants of Louisville and Cincinnati interested in the completion of this line, which has secured the right of way, and is beyond consolidation. Its wires, we are told, are being built, and substantially, at a less cost than any telegraph line in the country. New enterprises like this indicate not only capital, but business, and are living signs that the electric fluid is by no means passive. All it wants is the proper battery to make it stir pockets and trade.—*Atlanta New Era*.

THE ATLANTIC AND PACIFIC TELEGRAPH COMPANY.—This organization proposes to construct a double line of telegraph by two distinct routes with cross lines, from the seaboard to the Mississippi. The enterprise is so far advanced that a contract has been signed for the completion of the line from New-York to Buffalo, by September next. The contractor is Mr. E. H. Van Kleeck, of New-York, and there is already a large investment by our best business-men in the stock.

Our townsman, Mr. Charles E. Perry, who has recently been appointed Superintendent of the line, is an electrician, and was as early as 1856 Superintendent of the Panama Railroad Company's telegraph line at Panama. In 1865 Mr. Perry was appointed Superintendent of the Montreal line of the United States Telegraph Company, which position he honorably filled until the consolidation of the United States line with the Western Union Telegraph Company. His connection with the Produce House of E. D. Shepard & Co. not only places him in relations with our business-men, but makes him acquainted with the requirements, in the telegraphic line, of the mercantile community.—*Albany Argus*.

ANOTHER OCEAN CABLE.—A new company, called the British and American Telegraph Company (limited), has been formed in London for the purpose of laying a telegraph cable between Falmouth in England and Halifax in Nova Scotia. The capital of the company is stated at £600,000, in shares of £20 each, and the exclusive right has been secured "to use the well-known cable and system of deep sea telegraphy perfected and patented by Mr. Allan," by which, it is claimed, a saving of about one-third the cost of construction and great economy and power in working are secured. The distance from Falmouth to Flores, one of the Azores, is 1250 miles, then to Halifax, 1350 miles, or, from Falmouth to Halifax direct 2400 miles.

Among the directors we notice the names of several prominent gentlemen from the British Provinces who are known to have been in consultation with the home Government on the subject of the proposed confederation of the Provinces north of us. Wm. McDougal, the present Secretary of Canada; W. A. Henry, Attorney-General for Nova Scotia; and P. Mitchell, President of the Executive Council of New-Brunswick, represent in the Board the interests of their respective Provinces, while the names of United States Consul at London, Freeman H. Morse, and that of Sir David Brewster give the enterprise somewhat of an international character.



WEDNESDAY, MAY 15, 1867.

The Hope of the Future.

ONE of the principal complaints among business men, and the public generally, in regard to the telegraph, is its lack of perfect reliability; not so much in consequence of the annoying errors that sometimes occur, as the uncertainty attending the prompt transmission and delivery of important messages, more especially between the widely separated cities of the Eastern and Western States. It is true that some improvements have been made, and the average time of transmission of messages between distant points is now much less than it formerly was. But every business man who has occasion to use the telegraph to any extent knows, by sad experience, that there still occur many vexatious delays, of which no satisfactory explanation can be obtained, and the public have apparently at last come to consider it one of the attendant evils inseparable from the telegraphic system.

It has, however, for many years been our fixed belief that most of these delays arise from the lack of a thorough and comprehensive *system* in the construction, equipment and working of telegraph lines.

This fact is not to be wondered at, when we consider the manner in which the greater number of the lines in this country—now used and controlled by a single company—have been constructed. They were projected mostly by small and detached companies, constructed at various times, and under different management, without the slightest reference to any general plan of arrangement, and often as competing lines along parallel routes. Many of them were built by unscrupulous contractors and by men without the slightest practical skill or knowledge of telegraphic science. These detached lines have, within the past few years, gradually been combined and consolidated, until at length all the lines in the United States, with a few trifling exceptions, have fallen into the hands of one gigantic corporation, having virtually the control of the entire telegraphic business of the country. Thus the lines of this company at present are—so to speak—a conglomeration of patchwork, exhibiting every variety of construction and insulation, to work which, as a harmonious whole, we consider to be rather beyond the scope of any practical ability we have yet witnessed.

Now suppose a telegraph company were formed—the management of which should be in the hands of an association of practical telegraphers, of known ability and experience—men who have worked their way up from the operator's desk, and have a thorough knowledge of the whole telegraphic system. Such an association could be made to combine the best business and financial talent with the highest degree of electrical knowledge and scientific skill.

Let a telegraph company organized in this manner, before commencing operations, lay down a complete and comprehensive system of telegraph lines, cover-

ing every important business centre in the whole country—this system to have sufficient capacity to accommodate an amount of business equal to that which is now done by the present organization. This can be done at a comparatively moderate outlay provided the lines are properly constructed and arranged. Let the lines be constructed in the most substantial manner and of the best material. Let the best form of insulators, batteries and instruments be decided upon by actual scientific tests of the most thorough description, and not by prejudices in favor of this or that particular inventor or manufacturer, as is now invariably the case. Modern science provides methods of measuring these things with as much certainty as the merchant measures a yard of tape or a gallon of kerosene.

Then let the lines so built be worked by operators of proved ability, whose pay and promotion shall be in accordance with their conduct and acquirements, and controlled by superintendents who shall have obtained that position by their fitness for it. Does any one doubt that such an organization would create a perfect revolution in the whole telegraphic business of the United States?

We do not consider it probable that any company can successfully compete with the one which now controls the business of the country, unless upon some such basis as we have proposed. Every competing company hitherto organized has either covered but a very limited portion of the country, or has failed to provide the necessary facilities for the transaction of business. They have commenced by putting up one or two wires over the principal routes, which soon became choked up with business, causing serious delays and fatally damaging the reputation of the line before additional wires could be put up to relieve the pressure.

As an instructive illustration of the correctness of our opinions, we might instance the Merchants' Union Express Company, which from the first start provided facilities for doing as much business as all the old companies put together. It was criticised by many as being reckless extravagance, but the result has justified the expectation of its bold and clear-sighted managers, and it stands before the world a triumphant success.

There has never been a telegraph company in this country, with the exception of the American Company, who have enlarged their facilities for doing business in advance of the business itself; and even this company found it difficult to keep very far in advance. Other companies have added wires and new routes only when forced to it by the overwhelming pressure of business. The result has been continual crowding, delay and vexation, all of which might have been prevented had the proper measures been taken at the proper time.

It will be said by many that such a scheme as we have detailed, will be found impracticable—that it cannot be carried out. We answer that it can, and we furthermore predict that it *will*—for the spirit of the age demands it. We have plenty of men in the profession of undoubted character, capability and integrity, and the business public who have been brought in contact with them know them to be such.

A telegraph company organized under auspices of this kind would command the confidence, and what is equally necessary, the capital—of the commercial public—for the furtherance of the enterprise, if it were properly presented to them.

Further than this, we are in a position to be able

to state that a movement of this kind has already been inaugurated with every prospect of ultimate success. We have made some slight mention of the matter in a late issue—with a view of calling the attention of those parties most interested, the practical electricians and telegraphers, whose co-operation will be necessary in carrying out the project.

We can see nothing to prevent the ultimate success of this enterprise, and it must be evident to every person that no other company could command the same elements of success as one organized on this basis, and honestly and capably managed by men who engage in the business, not merely for the purpose of money making, but from love of the profession, and a desire to see it become elevated to its true position, that of the most wonderful and beneficial triumph of invention in this century of progress.

Of the financial prospects of the enterprise we propose to speak in a future article, when the plans of the association shall have become more fully developed.

Telegraphic Movements.

DURING the past two weeks quite a number of events have transpired of interest to the profession at large, the principal of which is the consummation of the long-expected consolidation of the Franklin and Insulated lines. We stated in our last issue that the matter still remained in considerable doubt, but to the surprise of many it was announced on the first of May that the Franklin Company had that day taken possession of the lines of the Insulated Company. The new company retains the name of the "Franklin," and has six wires between New-York and Boston—four over the shore route and two through the interior—besides four to Washington. The arrangements for the transfer of wires and other matters of detail have mostly been completed. Mr. James G. Smith is to be superintendent of the consolidated company.

The Franklin Company have for some time been endeavoring to put an office in the Boston Gold Exchange, in the old State House, but were successfully opposed by the Western Union Company. At length the former company opened an office in connection with a new gold exchange in Congress square. The brokers gradually seceded from the original establishment to the new one, which had the effect of giving the Franklin Company the virtual monopoly of the gold business between New-York and Boston. The Western Union Company then reduced their rates to fifteen cents per message, in which they were followed after a day or two by the Franklin Company—rather unwisely we think. The latter company at the present time, however, still retain nearly the entire business of the gold brokers.

The Bankers' and Brokers' Telegraph Company has recently issued a circular to its stockholders giving a brief statement of the present business and prospects of the line, in which it is stated that notwithstanding the wires of the company are crowded with business to their utmost capacity, the current monthly receipts fall nearly \$3000 below the expenses. The immediate cause of this state of affairs is the great reduction of rates which was made by the Western Union Company a few months since, which the Bankers' and Brokers' Company were of course obliged to conform to. But had it not been for the unnecessary extravagance and general bad man-

agement of the original projectors and managers of the line, no such result would have followed the reduction of rates. It is not necessary to go into particulars, but it may be stated that at present rates the receipts considerably exceed the actual *working* expenses of the line, and the addition of more wires will largely increase its business and its facilities for doing it without materially adding to its expenses. It is now proposed to issue bonds to the amount of \$105,000, payable in five years, with interest at six per cent. These are offered to stockholders at seventy-five per cent, which will amount to \$78,750. This sum will be used to construct additional wires and to pay the present indebtedness of the company. With the increased business that will result from the additional wires and the stoppage of numerous heavy items of expenditure which have been entailed upon the company by the reckless management of its former administration—this line has yet a fair prospect of success before it.

The Atlantic and Pacific Company are actively engaged in the work of construction at several points in the interior of the State. One construction party is at work in Westchester County, in the vicinity of Fordham. A line is also being constructed through Sixth Avenue, which is said to be part of a new system of metropolitan wires similar to the well-known city lines of the Western Union Company.

We also learn that the new company between Boston and Montreal, under the superintendence of Col. Robinson, will commence building during the present month.

Night Messages—A New Idea.

The Western Union Company have recently introduced quite an innovation, which may be regarded as a practical step towards cheap telegraphing. They have made arrangements for the transmission of "night messages" between the more important stations east of New-Orleans and St. Louis—by which a greatly increased number of words can be sent at the same rate that is usually charged for a ten word message. The terms and conditions printed on the blanks explain the arrangement fully, and are as follows:

This company will transmit messages between the principal cities on its lines east of St. Louis and New-Orleans—both inclusive—during the night, and deliver the same the succeeding morning on the following terms:

For a message of twenty words or less, the usual tolls on a ten-word message will be charged.

For a message of more than twenty words and not exceeding sixty words, twice the usual tolls on a ten-word message will be charged.

For a message of more than 60 words and not exceeding 120 words, three times the usual tolls on a ten-word message will be charged.

For each additional 100 words, or part thereof, in excess of 120 words, the usual tolls on a ten-word message will be charged in addition.

Such messages will be known as "NIGHT MESSAGES," and must be written hereunder, otherwise full tariff rates will be charged thereon. They will be received for transmission at any time during the day or evening, and will be sent during the succeeding night. No additional charge will be made for cipher messages.

And it is agreed, between the sender of the following message and this company, that the company shall not be liable for mistakes or delays in the transmission or delivery, or for non-delivery of any message beyond the amount received by said Company for sending the same.

We think that when this matter becomes fully understood and appreciated by business-men, that

it will be found a great convenience to them, and a profit to the company. These offices must be kept open at night in any event, and the lines and operators employed by these messages would otherwise remain idle a great part of the time. At the same time, the pressure upon the wires during the business portion of the day, will be to some extent relieved. We are quite confident the experiment will prove a success.

Telegraphic Miscellanies.

SPECIAL NOTICE.—Subscribers are requested to remit the amount of their subscriptions by Post-office orders whenever practicable, thereby securing themselves and us against loss and annoyance.

We return our thanks to S. L. G. for copies of No. 1 and No. 5 of THE TELEGRAPHER.

THE estimated expenses of the Chicago Fire Alarm and Police Telegraph for the ensuing year amount to \$30,180. The greater part of the above sum is paid in salaries to the employés.

A GRAND scheme is proposed to foretell approaching storms. There is to be a cannon at every county-seat; it will be shot off according to the violence of the storm. These signals will be printed in the country papers and the farmers will save their crops. Have we a telegraph among us?

THE value of the telegraphic wire and apparatus exported from England last year was £317,988, as compared with £148,677 in 1865; £218,464, in 1864; £317,214, in 1863; £320,897, in 1862; £214,441, in 1861; £251,712, in 1860; £74,206, in 1859; £224,708, in 1858; and £302,246, in 1857. Last year's exports would thus appear to have been about an average of the ten years. It will be observed, however, that it was in 1859 that this branch of our export trade attained its greatest development.

A FORT LARAMIE dispatch of the 28th April says the Indians surrounded Horse Shoe station and fighting was going on. A telegraph supply train was attacked on the 21st of April, seventy miles west of Laramie, and all the stock driven off and all the provisions destroyed.

No more work can be done on the telegraph line without an armed escort.

MESSRS. ALLIS, WATERS & Co., bankers in Rochester, N. Y., suspended on Tuesday, and made an assignment for the benefit of creditors. The liabilities are about \$75,000. The cause of this failure is understood to be Western Union Telegraph stock, of which the firm has carried a large quantity through the late decline.

DURING a recent thunder-storm the telegraph wires at Van Deusenville, Mass., were melted in several places by the lightning.

THE Hartford office of the Franklin Telegraph Company has been removed from the United States Hotel to the Merchants' Union Express Office in Hungerford and Cone's block.

A STRANGER played a trick on a monkey belonging to a hand-organ man in Galveston, but Jocko, thinking he had the best of the joke, stole the man's hat and ran with it up the nearest telegraph pole, where he sat for some time grinning, until all at once the wires began to operate and Mr. Monkey got a shock that sent him heels over head down the pole into the street.

THE Western Union Company have dispatched Major Perry McD. Collins and Hon. James R. Doolittle as commissioners to St. Petersburg in connection with the Overland Telegraph Extension. They left on the steamer of the 11th instant.

By a cable telegram from Paris dated May 10th, we learn that the new Franco-American Telegraph Company, which proposes to lay a submarine cable between Brest

and Halifax, has been promised the support and assistance of the imperial Government.

DR. MACGOWAN, who left the United States last fall for the purpose of building a telegraph line in China, has been compelled to abandon the design, as the Government will guarantee no protection to the wires. It is now proposed to connect the coast cities by means of submarine cables.

As an illustration of the perfect condition to which the working of the Atlantic cable has been brought, a London paper mentions that recently in the business of three entire days, during which messages were transmitted containing 24,440 letters (or 48,880 letters when doubled for repetition), the repetitions showed a mistake of only one letter, consisting in the substitution of "Pattieson" for "Patteson."

THE fault in the Tripoli and Benghazi section of the Malta and Alexandria cable is now repaired. This is the first fault which has occurred in this section of the cable since it was first laid—six or seven years ago.

THE telegraph office at San Francisco, Cal., has a flagstaff upon the roof, and the colors are kept flying when the overland line is working, and taken in whenever communication is interrupted. This arrangement may be looked upon as a sort of barometer indicating the state of the markets and of business generally, which is somewhat dull when the telegraph to "the States" is not working.

A LETTER from Paris to *The Chicago Tribune* says that Russia is represented telegraphically in the great Exposition by but one instrument, manufactured by the Government, and some specimens of the wire and insulators used on the overland line through Siberia.

MAYOR RICE, of Chicago, has endorsed the recommendation of E. B. Chandler, Superintendent of the Fire Alarm and Police Telegraph of that city, respecting various proposed improvements.

THE Ridgefield (Conn.) Office of the Franklin Line has been opened for the summer, and is in charge of Miss Kennedy.

THE Franklin Telegraph Company opened a new Gold Board in Congress Square, Boston, last Monday. The Western Union Company, with a view of crushing out the opposition, have reduced their rates to fifteen and one between the New York and Boston gold exchanges.

THE Russian-American Telegraph Company spent \$8,000,000 before they gave up the project. The lines extend to the Simpson River, eight hundred and fifty miles north of New-Westminster, the capital of British Columbia, and there was no physical obstacle to their reaching Behring Sea and the mouth of the Amoor. By their surveys the company have ascertained that the Steeken River is navigable for two hundred and fifty miles, the rivers Knitchpak and Youkon one thousand miles, and the river Anadyr two hundred and fifty miles from their mouths.—*N. Y. Post.*

THE Office of the Franklin Company was removed from No. 16 to No. 11 Broad street (the office of the Insulated Lines) on the 11th instant.

FIRE ALARM TELEGRAPH.—The fire on Tuesday furnishes another illustration of the necessity of a Fire Alarm Telegraph in this city. The bells in the first district struck the first district, and other bells struck the second and third districts, while the fire was in the fourth district, destroying a carpenter shop in Sand street. The consequence was that the fire companies scattered in different directions throughout the city. Such confusion frequently occurs, and it may very well happen that it will yet result in a disastrous conflagration.—*Albany Argus.*

M. PAUL HEDONIN, of Rouen, France, has invented an apparatus which can determine with exactness the depths which have hitherto remained unknown. Some experiments have already taken place near Paris. The shock

war upon such lines as attempt to compete with them, in hopes of driving them to the wall. The managers of that company have stated that hereafter they will not purchase competing lines, except when sold out under the auctioneer's hammer. They have determined, by reduction of tolls below a living rate, to force all competing lines into bankruptcy. In pursuance of this policy they have reduced the price of messages between the Gold Boards of this city and Boston to fifteen cents, and of course the Franklin and Insulated Lines have followed their lead. It is not improbable that the contest may reduce the tolls for general business between Boston and Washington below even the present rates.

Notwithstanding the belligerent attitude assumed by the Western Union Company, new lines are being constructed and others are projected, all of which will eventually be combined into a general system of competing lines that will give the present monopoly a pretty hard tussle. The indications are that within a year or two there will be a telegraphic contest which will exceed in bitterness and determination any that has preceded it.

SUIT FOR DAMAGES AGAINST A TELEGRAPH COMPANY.—A petition was filed in the Superior Court of Cincinnati yesterday, by H. L. Davis, commercial reporter, against the Western Union Telegraph Company, for seventy thousand dollars' damages, for alleged intentional detention of dispatches by the company. Mr. Davis has been very fortunate in securing the services of two of our ablest lawyers, and his correspondent, M. K. Tompson, of New-York, has also secured the valuable services of Edwin Blankman, Esq., of that city.

The trial promises some rich developments, and will, no doubt, give the public some enlightenment as to the manner in which their business has been done.—*Cincinnati Times*, May 24th.

By a recent resolution of the Board of Police Commissioners in this city, the Superintendent of the Police Telegraph, Mr. James Crowley, is authorized to extend it from Harlem to Tremont on the east, and from Carmansville to Yonkers on the west section, at a cost not to exceed \$900. Both these points are in Westchester County, and the idea is to prevent horse-stealing, which is now extensively practiced there, and also to enable Superintendent Kennedy and the Commissioners an opportunity to quickly communicate with any of the suburban towns within the Metropolitan Police District in case of a row there. Several instances have occurred of late years where rough gangs from this city have made an onslaught upon the peaceable inhabitants of these small villages, and before the police authorities could be informed of the occurrence, the ruffians had made their escape.

At a recent meeting of the Polytechnic Association of the American Institute, a paper on the Galvanic Battery was read by Dr. L. Bradley, being substantially the same as that which appeared in a recent number of THE TELEGRAPHER. He was followed by a few remarks from Dr. Van der Weyde, who said he did not pretend to follow the gentleman through all his figures and formulas, and differed from him in many points. His theories as to intensity were not altogether new, as several years ago Owen had stated that the maximum power is attained when the intensity in the battery is equal to the resistance in the wire through which the current passes. He also objected to the statement that the nitrous acid fumes produced in Grove's Battery are due to local action, and that Hill's Battery is cheaper than Daniells'. He considered them the same, in fact.

THE Western Union Company have opened an office at Brookfield, Conn., in charge of Mr. Anthony, of the Merchants' Union Express Company.

The Little Times understands, on good authority, that the Russian Government is ready to subsidize the Russo-American Telegraph Line to an extent that will lead to a resumption of the undertaking. So says an English exchange.

THE submarine telegraph cable connecting France with Algeria, and extending from Marsala to Bizerte, has been interrupted, and communication is temporarily suspended between the two points.

THE screw steamer Narva, has been chartered to lay the submarine cable between Florida and Cuba. The well-known English telegraph engineer, Mr. F. C. Webb, is engaged upon the work.

THE Corfu and Otranto submarine cable was successfully repaired on the 4th of May by the steamer Hawk, which returned to Malta on the 6th. The shore line was found to be completely broken through on the Otranto side, not far from the land.

IT has recently been discovered that the passage of an electric current through a wire produces an expansion independent of that of heat.

WEIDEMAN has shown that the twisting and untwisting of an iron wire through which a current is flowing produces induced currents in a coil surrounding it.

THE two Bain wires, together with the two northern wires to Fitchburg and Keene, are to be transferred from the Ladies' Department into the main office Western Union Company, Boston.

ATLANTIC CABLE.—A movement is on foot in London to clear off the whole of the mortgage debentures of the Atlantic Telegraph Company. More than \$200,000 have been paid in for this purpose, and in addition to this one of the largest shareholders, in a circular addressed to his fellow-shareholders, of whom there are upwards of 4000, undertakes to subscribe the sum of £4500 to the completion of this project, provided the other shareholders respond in proportion to their holdings. This debt being removed, there is little doubt but that the Anglo-American Company will shortly be paid off, and the original Atlantic Company, after all its reverses, will then come into the enjoyment of its valuable property. It would be able then to reduce the tariff of charges. In the second week of April the traffic averaged \$6150 in gold.

"THE natives in the 'Camaroos' country, on the west coast of Africa, use an instrument which they call 'elliembie,' upon which they produce a variety of sounds, audible at several miles distance, and arranged so as to form a perfect and distinct language, in which they send their 'telegrams' from point to point. The instrument has been in use from immemorial time."

THE telegraph and express line is now open from London to Tien-tsin (the port of Pekin) dispatches passing in twelve days. The Chinamen don't telegraph much yet, however, and they are bitterly opposed to railroads as well. The enterprising gentleman who has for two years expended so much effort to introduce the telegraph, has given it up in despair of any efficient protection to the lines against the hostile prejudice and perfect thievishness of the dense and densely ignorant population. He has gone, we believe, to Japan, with much fairer prospects of success. Arrangements have indeed been already made to lay a submarine cable between Yeddo and Yokohama, and land lines to the interior will follow.

TO CORRESPONDENTS.—Subscriber, Kane, Pa.—A letter addressed, Care of International Ocean Telegraph Company, New-York city, will reach him.

PERSONAL.

MR. JAMES A. LAVEN, late Manager of the Provincial Telegraph Office at Hamilton, C. W., in which position he was greatly esteemed by the business public, has received the appointment of operator and ticket agent in the Great Western Office at Buffalo, for the Niagara and Erie Railway, which has recently been opened for business.

C. G. GOODWIN, of Portland, takes a position as Chief Operator of the Franklin Company's Office in this city, vice J. G. Christie.

We are pleased to learn that Mr. H. C. Crandall, of the Western Union Telegraph Office at West Cornwall, is a member of the Connecticut Legislature.

J. W. STOVER has been appointed Manager of the Franklin Company's New-York Office.

A. H. BAUER, late of the Insulated Lines Office, has taken charge of the Gold Room (K) Office of the Franklin Line in this city.

CHARLES DE MOLL, late of "K" Office, goes to the main Office of the Franklin Company.

R. W. POPK, has taken charge of the Franklin Company's (NX) Office, at 233 Broadway, in this city.

W. C. EDGECOMB, of Mystic, has taken charge of the Franklin Company's Office at Springfield, Mass., in place of E. L. F. Randolph, who goes to the Philadelphia Office of the same company.

R. B. WOOLSEY, Train Dispatcher and Manager of Champaign (Ill.) Office, has accepted a like position in Illinois Central R. R. Office, Chicago.

JOHN L. JONES, lately in the employ of the Illinois Central R. R., is now in charge of the Western Union Office at the Delavan House, Albany.

MR. N. Z. BAKER, Railroad Ticket-Agent, and Operator at the Lake Champlain station, Whitehall, was severely injured on Friday, the 17th ult., while climbing upon the top of a car, entering a tunnel. He struck his head against the covering, and was quite badly injured. In falling from the car, he was caught by a brakeman, and his life saved.

J. W. PITFIELD, late Agent of the Western Union Telegraph Company at New-Westminster, B. C., has resigned his position and returned to this city. He was one of the passengers by the steamer Santiago de Cuba, which ran ashore at Atlantic City a few days since.

M. GORDON has resigned his position in the Port Hood (C. B.) Office, and returned to Boston.

S. BARTON, formerly of the Cincinnati (Ohio) Office has accepted a position in the Port Hood Office (Newfoundland line).

MRS. C. G. L. POPE has resigned her position with the Western Union Telegraph Company, Boston.

MARRIED.

In Portland, Me., on May 5, 1867, Mr. Daniel C. Shaw to Miss Ellen P. Melcher.

In Chicago, May 7, at the residence of J. A. B. Waldo, by Rev. C. C. Clark, H. B. Robinson, of Blue Island, to Miss Luna A. Waldo, of Chicago. No cards.

DIED.

In Utica, N. Y., on the 22d ult., Mr. W. H. Kirtland, late Superintendent of Repairs on the U. S. Line.

In Oxford, Mass., May 10th, Miss Mary E. Phipps, late of the Western Union Telegraph Office at Middletown, Conn., aged 22 years, 8 months and 18 days.

The sweetest flowers that deck the earth,
Ofttimes the soonest fade;
Their fragrant breath exhales at birth,
And lingers yet to bless the earth,
Then in the root is stayed.

The morning glory climbs on high
To greet the early hour,
And when cold winter draweth nigh,
And frosts compel a dying sigh,
It dies in bloom—sweet flower!

Dear Mary! friend of other days,
Hast thou, too, soared above?
God gave thee kind and gentle ways,
To be the light of all thy day
Then claimed his own in love.

Thou'st climbed a while earth's rugged hills,
And culled a while its flowers,
But always drank of love's pure nills,
And caught the echo of its thrills,
And died in bloom—sweet flower!

New-York, May 27.

M. E. L.

PREAMBLE

TO THE

Constitution of the National Telegraphic Union.

We, Telegraphers, uniting ourselves for the purposes of mutual protection in adversity, upholding and elevating the character and standing of our profession, promoting and maintaining between ourselves and our employers just, equitable, and harmonious relations, and advancing the general interests of the fraternity; recognizing the principle that the interests of the employer and employee are identical, and firmly believing that a union among ourselves, established upon just principles, will result in manifold benefits, not only to us, but also to those who employ us, and be the means of enlarging and establishing, upon a better foundation, the peculiar business to which we look for our support, with the hope that our endeavors will merit the commendation of all good men, and draw down upon our undertaking the benign influence of our Creator, do hereby ordain and promulgate for our organization and future government, the following Constitution.

EXTRACTS

FROM THE CONSTITUTION AND BY-LAWS.

ARTICLE II.

SECTION I.

3. No person shall be a delegate who shall not have attained the age of twenty-one years.

4. The number of delegates shall not exceed one for the first fifty members, and one extra delegate when the exact proportion shall be twenty-five members in excess; but each District comprising *not less than fifteen* members shall be entitled to one delegate.

5. At the regular meeting in July the District shall nominate candidates for District officers and delegates.

8. No member who is six months in arrears for dues shall be entitled to vote, or be eligible to any office, and shall not be enumerated in the basis of representation.

10. When vacancies occur in the Convention, the Director of the District in which they occur shall order an election to fill such vacancies, which election shall be conducted as provided in Clauses 5 and 6 of this Article. When this is impracticable, the Director and his Council may appoint suitable persons to fill the vacancies.

11. District officers and delegates shall assume the duties of their several offices at the first regular meeting after their election.

12. The expenses of the delegates shall be borne by the Union; the bills for the same to pass through the course provided by Clause 8, Sec. 1, Art. IV., of the Constitution.

SECTION II.

1. The Convention shall assemble annually on the second Wednesday in September.

ARTICLE III.

SECTION II.

1. The general officers shall constitute an Executive Committee, whose duty it shall be to attend to the proper execution of this Constitution; decide all matters in dispute concerning the interpretation of the Constitution, or between the different subordinate organizations; and attend to such other matters as the interests of the Union may require.

ARTICLE IV.

SECTION I.

6. It shall be the duty of the District Director to call District meetings; preside over all such meetings; declare the result of all District elections; decide all local questions referred to his decision; keep a record of all members admitted to the Union within his District; represent the District in all cases affecting the National Organization, except when special delegates are chosen for that purpose; attend to the distribution throughout his District of all papers, documents, or publications issued by the Union or District; and superintend at all times the affairs of his District. He shall appoint a council or committee of two to assist him in the discharge of his duties, and to consult with in cases requiring his decision or arbitration.

7. It shall be the duty of the District Secretary to keep a record of all proceedings at every meeting of the District, and to issue all notices and summonses. He shall keep a list of all officers and members of the District. He shall be the custodian of, and shall be held responsible for, all the documents, books, papers, and supplies of the District. He shall be required to notify all members of their election to fill any District office, and any person of his election to membership.

He shall also perform the duties imposed upon him by the District By-Laws and the District.

8. It shall be the duty of the District Treasurer to collect all moneys due the Union from his District, and forward the same, quarterly, with a report to the Treasurer of the Union.

Before entering upon the duties of his office, the District Treasurer shall give an obligation or bond to the

Union, with at least two responsible securities, each in the sum of fifty dollars, and himself in a like amount.

He shall report monthly to the District the names of all members in arrears for dues, together with the amount of their indebtedness.

He shall keep a book in which shall be recorded the name of each member of the District in such manner as to show when he was admitted, paid the full amount of his dues, was suspended or expelled, withdrew or died, which book shall be the register of the District. He shall also perform the duties imposed upon him by the District By-Laws and by the District.

ARTICLE V.

SECTION I.

1. The President may submit any question that he may deem necessary to the members of the Convention separately, by telegraph or in writing, and upon the receipt of their votes thereon, declare the decision of the Convention, and notify the Recording Secretary accordingly; and such action of the Convention shall be as binding upon the Union as any adopted at a meeting of the Convention.

ARTICLE VI.

SECTION I.

1. No person shall be admitted to membership in this Union who has not attained to the age of eighteen years who does not bear a good moral character, or who shall be so disabled by bodily infirmity as to be unable to perform the ordinary duties of his position, or who is not a operator of at least three years' experience.

GENERAL OFFICERS

OF THE

NATIONAL TELEGRAPHIC UNION.

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VICE-PRESIDENT—F. G. CHURCHILL, Laporte, Ind.

TREASURER—A. L. WHIPPLE, N. Y. C. R. R., Albany, N. Y.

RECORDING SECRETARY—J. J. G. RILEY, B. & B. Tel. Office, Baltimore, Md.

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" "

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" "

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" "

JOURNAL DES TELEGRAPHES.—REVUE MENSUELLE INTERNATIONALE—LEGISLATION—JURISPRUDENCE—CHRONIQUE. M. J. D'Aubonne, Redacteur en chef, Bureau, 1 Rue du Mail, Paris, France.

The Telegrapher:

PUBLISHED BY THE

NATIONAL TELEGRAPHIC UNION.

THE UNION is an association of telegraph operators, for their own mutual benefit and support, and THE TELEGRAPHER is published to disseminate information among its members, as well as general telegraphic news.

THE TELEGRAPHER is published in New-York, on the first and fifteenth of every month, and besides matters of associate interest, is devoted to the interests of telegraphers all over the world, and will contain telegraphic information from all parts of the globe.

It is not confined to any one policy, but will seek to correct abuses, give honor and praise wherever and whenever due, and endeavor to elevate the standard of operators, both morally and scientifically.

It will not support any one person or corporation, but will aim to treat all alike, censuring either or both, when merited, and praising alike when praise is won.

Its columns will not be open to any one for personal abuse, nor for personal profit at the expense of others, nor will it contain anything that the most fastidious would read.

THE TELEGRAPHER will contain Original Articles upon any and all subjects of interest to the fraternity and profession; Extracts from Works on Telegraphy, Electricity, and Magnetism; Statistics; Improvements in Telegraphy, Telegraph Instruments, and Materials Correspondence; Poetry upon Telegraphic Subjects; Telegraphic Literature; Incidents and Items of Personal Interest; Promotions; Removals; Resignations; Marriages and Deaths of Telegraphers; Newspaper Extracts of Telegraphic Items from any and every city, town, State, or country.

We invite the co-operation of every one who is directly or remotely connected or interested in Telegraphy, in this undertaking to establish and maintain a first-class telegraphic newspaper, and for any items of news or personal telegraphic interest, articles or news paper extracts upon any of the above-mentioned subjects. We will cheerfully pay a reasonable sum for any trouble and expense gone to in behalf of this paper, and for any original articles which we may use.

We request aid from all, whether high or low, and will make a fair return for the same.

THE TELEGRAPHER is a medium quarto of twelve pages (the last four of which will be devoted to Advertisements of Telegraphic Materials, or any other respectable business), with clear type and on good paper. It will aim to be a first-class telegraphic newspaper, and not to be surpassed in the vigor and spirit of its editorials, nor in the variety and freshness of its reading matter generally. On all subjects which it discusses, it will aim to be correct, independent, clear, conscientious, and fearless.

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All communications and letters relating to THE TELEGRAPHER must be addressed to the Editor, care P. O. Box 6077, New-York.

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